



COUNTY COUNCIL OF LANARK.

ANNUAL REPORT

OF THE

COUNTY MEDICAL OFFICER

FOR THE YEAR 1923.

GLASGOW :

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COUNTY HEALTH DEPARTMENT.

County Medical Officer.

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Assistant Health Officers and Tuberculosis Officers.

Midale Ward District—

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JOHN A. C. GUY, M.B., Ch.B., D.P.H.

Upper Ward District—

ALEX. FRASER, M.D., D.P.H.

Lower Ward District—

JOHN P. CRICHTON, L.R.C.P.&S., D.P.H., L.D.S.

Bacteriologist.

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CHARLES MACARA.

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COUNTY OFFICES,

HAMILTON, 30th September, 1924.

COUNTY OF LANARK

(EXCLUSIVE OF BURGHS).

Report of the County Medical Officer.

Year 1923.

INTRODUCTORY.

This Annual Report gives a detailed account of the work done under the administrative control of the County Council, viz., work done in the Chemical and Bacteriological Laboratories, work done under the Food and Drugs Acts, the Rivers Pollution Prevention Acts, Shops Acts, and Fertilisers and Feeding Stuffs Act.

For the three Sanitary Districts of the County—Upper, Middle, and Lower Wards—separate reports are issued dealing with public health work administered by the District Committees. Certain aspects of this work have also been referred to in this report.

Staff. — The duties of the County Medical Officer are largely of an administrative nature. When the County Council was formed and the staff appointed, about 1890, the County Medical Officer undertook all Health Officer's duties connected with the Public Health Departments of the three Districts of the County. In these early days the duties were mainly concerned with the recognition and control of acute infectious diseases, and the Sanitary Inspectors undertook the greater part of the executive work. As the duties and responsibilities increased the staff was correspondingly increased, and with the coming into operation of the National Health Insurance Act six Assistant Medical and Tuberculosis Officers were appointed in 1913. Since then, in connection with the Maternity and Child Welfare Scheme, two Medical Officers have been appointed by the Middle Ward District Committee to devote their time exclusively to Maternity and Child Welfare work.

There have been no changes in the staff during the year.

The Sanitary Inspectors, Nurse Inspectors, and Nurse Health Visitors are all appointed by each District Committee, and a record of the work done by them is given in the District reports.

STATISTICS.

The *Area* of each of the three Sanitary Districts of the County is as follows:—Middle Ward, 186,118 acres; Upper Ward, 326,803 acres; and Lower Ward, 24,643 acres.

The *Population*, as ascertained at the Decennial Censuses, 1891, 1901, 1911, and 1921, as well as the estimated population for the years 1922 and 1923, are given in the following tabular statement. The population, estimated to the middle of the year, is based upon the number of occupied houses, according to the Valuation Roll and the institution population in the annual Police Census:—

<i>(Census Population.)</i>				
Year.	Middle Ward.	Upper Ward.	Lower Ward.	County.
1891, -	142,548	37,005	30,261	209,814
1901, -	179,363	40,420	*41,531	261,314
1911, -	202,663	42,978	56,974	302,615
1921, -	218,817	46,701	29,933	295,451
<i>(Estimated Population.)</i>				
1922, -	224,790	46,870	30,220	301,880
1923, -	232,700	47,700	31,500	311,900

* Does not include the population (5,642) in the area annexed to the Burgh of Govan as from 15th August, 1901.

The reduction in the area and population through extension of Burgh Boundaries since the year 1891 were as follows:—

	Acreage.	Estimated Population.
1896—City of Glasgow, - - -	450	632
Burgh of Wishaw, - - -	465	1,100
1899—City of Glasgow, - - -	370	399
1901—Burgh of Govan, - - -	209	5,642
Do. Hamilton, - - -	67	—
1906—Do. Rutherglen, - - -	469	3,000
1908—Do. Motherwell, - - -	438	3,600
Do. Lanark, - - -	214	260
1912—City of Glasgow, - - -	1,706	28,490
1913—Burgh of Renfrew, - - -	216	18
1914—Do. Coatbridge, - - -	32	4
1920—Do. Motherwell and Wishaw, -	296	500

Rates—For the purposes of comparison, Table A shows birth and mortality rates of each Sanitary District for the last three decennial periods, and for the years 1921, 1922, and 1923. It will be observed that the rates are highest in the Middle Ward District, where the employment of the population is chiefly in mining and manufacturing industries.

In each District there has been a marked decline in the birth-rate and death-rate since the decennial period of 1901-10. A birth-rate of 38·9 per 1,000 of the population in the Middle Ward District for the decennial period 1901-10 is now down to 26·7, and the infant death-rate from 124 to about 77 per 1,000 births. The infant death-rate is one of the lowest yet recorded, and, as the general death-rate is chiefly controlled by the infant death-rate, this also is one of the lowest recorded.

The *natural increase of the population*—i.e., the excess of births over deaths—remains about the same so far as numbers are concerned, but in proportion to the population there has been a slight decrease. The *natural increase* in the County for the year 1923 amounted to 4,574.

TABLE A.—SHOWING BIRTHS AND DEATHS IN EACH COUNTY SANITARY DISTRICT; BIRTH-RATES AND DEATH-RATES PER 1,000 OF THE POPULATION; AND INFANTILE DEATHS AND INFANT MORTALITY RATES PER 1,000 BIRTHS.

		Average. 1891-1900.	Average. 1901-1910.	Average. 1911-1920.	1921.	1922.	1923.
MIDDLE WARD.—							
Births, ...	...	6,232	7,412	6,820	7,023	6,364	6,218
Birth-rates, ...	...	39·1	38·9	32·5	32·1	28·3	26·7
Infant Deaths							
(under one year), ...	...	809	921	754	632	650	481
Infant Deaths per							
1,000 Births, ...	...	129·9	124·2	110·4	89·9	102·1	77·3
Deaths, ...	...	2,908	3,118	3,000	2,660	2,936	2,620
Death-rates, ...	...	18·1	16·3	14·3	12·1	13·0	11·2
UPPER WARD.—							
Births, ...	...	1,222	1,209	1,143	1,225	1,097	1,144
Birth-rates, ...	...	31·6	28·9	25·9	26·2	23·5	23·9
Infant Deaths							
(under one year), ...	...	116	104	91	76	101	74
Infant Deaths per							
1,000 Births, ...	...	95·5	86·5	80·2	62·0	92·0	64·6
Deaths, ...	...	606	552	561	541	584	512
Death-rates, ...	...	15·6	13·2	12·7	11·5	12·4	10·7
LOWER WARD.—							
Births, ...	...	1,200	1,576	869*	672	643	664
Birth-rates, ...	...	32·9	33·4	24·1*	22·4	21·2	21·0
Infant Deaths							
(under one year), ...	...	150	174	88*	60	48	48
Infant Deaths per							
1,000 Births, ...	...	125·2	110·8	98·2*	89·3	74·6	72·3
Deaths, ...	...	577	683	428*	294	345	320
Death-rates, ...	...	15·9	14·4	12·2*	9·8	11·4	10·1

* By the Glasgow Boundaries Act, 1912, an area of 1,706 acres, with a population of 28,490 was annexed by the City of Glasgow, which affected the statistics from 1st January, 1913.

In Table B the deaths during the year have been classified according to cause.

Respiratory diseases, classified as bronchitis and pneumonia, caused 393 deaths, or 11·4 per cent. of the total mortality. If to this be added deaths from influenza, which amounted to 42, or 1·2 per cent.; deaths from other respiratory diseases, which amounted to 46, or 1·3 per cent.; and deaths from pulmonary tuberculosis, which amounted to 206, or 5·7 per cent., it will be found that diseases of the chest and respiratory organs are responsible for one-fifth of the total deaths. Compared with last year, there was a considerable decrease in the number of deaths from bronchitis, pneumonia, and influenza, but the deaths from pulmonary tuberculosis show a slight increase. The deaths from these respiratory diseases included 107 deaths of infants under one year.

Organic Heart Diseases were responsible for 319 deaths, or 9·2 per cent. of the total deaths.

Malignant Diseases—certified as cancer, carcinoma, sarcoma, &c.—were responsible for 291 deaths, or 8·4 per cent. of the total deaths. For some years prior to 1914 statistics were published showing the mortality caused by these diseases throughout the County areas. In the following table statistics are given for the whole period of County administration, which show that the rate of mortality has increased considerably. This does not necessarily mean an increased prevalence of the disease, but may be accounted for by more accurate diagnosis. Eighty-six per cent. of the deaths were of persons over 45 years of age :—

MALIGNANT DISEASES—DEATHS AND DEATH-RATES PER 10,000 OF THE POPULATION IN QUINQUENNIAL PERIODS FROM 1891-1920 AND FOR THE YEARS 1921, 1922, 1933, FOR EACH OF THE THREE COUNTY SANITARY DISTRICTS.

	Middle Ward.		Upper Ward.		Lower Ward.	
	Average annual deaths.	Death-rate.	Average annual deaths.	Death-rate.	Average annual deaths.	Death-rate.
1891-95,	75	4·9	18	4·7	14	4·4
1896-1900,	87	5·1	25	6·2	21	5·2
1901-05,	97	5·2	31	7·7	21	4·7
1906-10,	136	6·9	31	7·2	38	7·4
1911-15,	137	6·6	40	9·2	31	8·1
1916-20,	160	7·5	41	9·3	28	9·4
1921,	183	8·3	35	7·5	25	8·3
1922,	178	7·9	32	6·8	35	11·5
1923,	209	8·9	54	11·3	28	8·8

The deaths from the various *infectious diseases* are dealt with under the heading, "Prevalence of Infectious Diseases."

The *infant deaths*, according to cause, are given under the heading, "Maternity and Child Welfare."

TABLE B.—DEATHS IN EACH OF THE THREE COUNTY SANITARY DISTRICTS, CLASSIFIED ACCORDING TO CAUSE, GIVING THE DEATH-RATES PER 1,000 OF POPULATION FOR THE YEAR 1923.

Cause of Death.	MIDDLE WARD.		UPPER WARD.		LOWER WARD.	
	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.
Enteric Fever, - - - -	5	·02	1	·02	—	—
Measles, - - - -	45	·19	4	·08	2	·06
Scarlet Fever, - - - -	22	·09	3	·06	—	—
Whooping-Cough, - - - -	67	·29	12	·25	5	·16
Diphtheria, - - - -	24	·10	4	·08	3	·10
Influenza, - - - -	38	·16	2	·04	2	·06
Erysipelas, - - - -	8	·04	—	—	2	·06
Other Septic Diseases, - - - -	36	·15	3	·06	—	—
Cerebro-spinal Fever, - - - -	4	·02	—	—	1	·03
Chickenpox, - - - -	2	·01	—	—	—	—
Enc. Lethargica, - - - -	4	·02	—	—	—	—
Pulmonary Tuberculosis, - - - -	147	·63	33	·69	26	·83
Meningeal, - - - -	52	·22	4	·08	—	—
Abdominal, - - - -	43	·19	3	·06	4	·13
Other Forms, - - - -	28	·12	4	·08	4	·13
Malignant Diseases, - - - -	209	·90	54	1·13	28	·89
Rheumatic Fever, - - - -	14	·06	2	·04	—	—
Meningitis (simple), - - - -	27	·12	5	·11	3	·10
Cerebral Hæmorrhage, - - - -	148	·64	37	·78	30	·95
Convulsions, - - - -	17	·07	7	·14	1	·03
Other Nervous Diseases, - - - -	70	·30	6	·13	17	·54
Organic Heart Disease, - - - -	204	·88	70	·47	45	1·43
Bronchitis, - - - -	123	·53	19	·40	13	·41
Pneumonia, - - - -	195	·84	28	·59	15	·48
Laryngitis, - - - -	3	·01	1	·02	—	—
Other Respiratory Diseases, - - - -	26	·11	14	·29	2	·06
Diarrhœa, - - - -	73	·31	7	·15	6	·19
Appendicitis and Typhlitis, - - - -	30	·13	5	·11	2	·06
All Liver Diseases (normal), - - - -	13	·05	4	·08	—	—
Other Digestive Diseases, - - - -	91	·39	13	·27	11	·35
Nephritis and Bright's Disease, - - - -	71	·30	9	·19	6	·19
Puerperal Sepsis, - - - -	17	·07	1	·02	2	·06
Dis. and Acc. of Pregnancy, - - - -	34	·15	4	·08	2	·06
Congenital Malformations, - - - -	37	·16	4	·08	2	·06
Premature Birth, - - - -	105	·45	17	·36	12	·38
Atrophy, Debility, &c., - - - -	85	·36	13	·27	15	·48
Atelectasis, - - - -	7	·03	1	·02	1	·03
Injury at Birth, - - - -	8	·04	1	·02	2	·06
Suffocation—Overlying, - - - -	—	—	—	—	—	—
Syphilis, - - - -	4	·02	—	—	—	—
Rickets, - - - -	2	·01	—	—	2	·06
Violence, - - - -	100	·43	14	·29	8	·26
Suicide, - - - -	10	·04	2	0·4	1	·03
Other Defined Diseases, - - - -	329	1·41	101	2·12	43	1·37
Ill-Defined Diseases, - - - -	43	·18	—	—	2	·06
Total, - - - -	2,620	11·25	512	10·70	320	10·15

The following table gives a comparison of the County birth and mortality rates with those of the Burgh areas for the year 1923. For this information I am indebted to the Registrar-General, and it should be noted that the figures for the three County Sanitary Districts are slightly different from the figures published by the Public Health Department, due to the fact that the Registrar-General's estimated population differs from that of the Public Health Department :—

		YEAR 1923.		
		Birth-rate. Corrected for Transfers.	Death-rate. Corrected for Transfers.	Infantile Mortality Rate, Corrected for Transfers.
Population Census, 1921.				
COUNTY OF LANARK—				
Middle Ward, -	218,817	27·1	11·4	78
Upper Ward, -	46,701	23·7	10·7	65
Lower Ward, -	29,933	21·1	10·2	72
BURGHs—				
Glasgow, - -	1,034,174	25·6	14·2	90
Motherwell and Wishaw, -	68,869	24·8	10·7	68
Coatbridge, -	43,909	27·2	13·2	80
Hamilton, -	39,420	27·3	11·4	64
Airdrie, - -	25,093	29·4	11·9	71
Rutherglen, -	24,744	19·2	11·6	60
Lanark, - -	6,268	25·0	10·3	58
Biggar, - -	1,489	10·7	10·7	—

PREVALENCE OF INFECTIOUS DISEASES.

The undernoted diseases are classified in relation to notification, and are divided into two groups. Group I includes diseases which are compulsorily notifiable (a) under the Notification Act; (b) by adoption under the Notification Act; and (c) by order of the Local Government Board; and Group II not compulsorily notifiable diseases.

GROUP I.		
(A)	(B)	(C)
	<i>August, 1906.</i>	<i>1st August, 1912.</i>
Smallpox.	Cerebro-spinal Meningitis.	Pulmonary Tuberculosis.
Diphtheria.	<i>24th October, 1912.</i>	<i>1st July, 1914.</i>
Scarlet Fever.	Ophthalmia Neonatorum.	All forms of Tuberculosis.
Typhus Fever.	Acute Poliomyelitis.	<i>1st August, 1919.</i>
Typhoid Fever.	Tetanus.	Malaria.
Puerperal Fever.	Anthrax.	Dysentery.
Erysipelas.	Glanders.	Trench Fever.
	Actinomycosis.	Acute Primary Pneumonia.
		Acute Influenzal- Pneumonia

GROUP II.

(A)	(B)	(C)
Measles.	Chickenpox.*	Ringworm.
German Measles.	Mumps.	Scabies.
Whooping-Cough.		Encephalitis Lethargica.

*Compulsorily notifiable from 23rd July to 31st December, 1923.

Table C gives the cases and deaths due to the various infectious diseases in each Sanitary District during the year :—

TABLE C.

	Middle Ward.		Upper Ward.		Lower Ward.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Diphtheria, - - -	300	24	46	4	36	3
Scarlet Fever, - - -	1,242	22	265	3	99	—
Typhoid „ - - -	62	5	2	1*	2	—
Cerebro-spinal Fever, -	11	4	—	—	5	—
Erysipelas, - - -	175	8	29	—	26	2
Puerperal Fever, - -	64	17	1	1*	6	2
Infantile Paralysis, - -	1	—	—	—	—	—
Ophthalmia Neonatorum,	61	—	2	—	17	—
Malaria, - - - -	4	—	1	—	—	—
Dysentery, - - - -	9	—	1	—	—	—
Tetanus, - - - -	2	—	—	—	—	—
Primary Pneumonia, -	709	195	57	28	48	15
Influenzal „ -	40		—		7	
Pulmonary Tuberculosis, -	422	147	52	33	45	26
Non-Pulmonary „ -	475	123	30	11	41	8
† Measles, - - - -	—	45	—	4	—	2
† Whooping-Cough, - -	—	67	—	12	—	5
Chickenpox, - - - -	281	2	40	—	46	—

* These deaths occurred outwith the district.

† Not being notifiable the number of cases cannot be ascertained.

Of all the forms of acute infectious disease, measles and whooping-cough are still by far the most prevalent and cause most deaths. During the year 1923 these diseases were not so prevalent as in the previous year, the number of deaths amounting to 135, or 3·9 per cent. of the total deaths, compared with 264 in the year 1922. The

deaths from scarlet fever and diphtheria only amounted to 56, or 1·6 per cent. of the total deaths. Enteric or typhoid fever has now almost disappeared as a cause of death. Tuberculosis was responsible for 348 deaths, or 10·8 per cent. of the total deaths, as compared with 312 deaths in the previous year.

DIPHTHERIA.

A—Cases per 10,000 population.

B—Deaths per 10,000 population.

C—Deaths per 100 cases.

	Middle Ward.			Upper Ward.			Lower Ward.		
	A.	B.	C.	A.	B.	C.	A.	B.	C.
1891-95, -	13·9	4·9	35·1	20·0	3·69	17·8	7·5	2·47	32·6
1896-1900,	8·5	2·0	24·3	22·0	1·46	6·53	8·4	1·73	20·4
1901-05 -	8·0	1·8	22·3	16·0	1·6	10·3	11·0	1·5	13·5
1906-10 -	19·3	2·0	10·8	36·6	1·74	4·75	26·0	1·9	7·2
1911-15 -	16·3	1·5	9·9	21·8	1·83	8·40	23·0	1·9	8·6
1916-20 -	14·2	1·3	10·0	18·0	1·5	8·5	12·0	1·2	9·7
1921, -	14·3	1·5	10·5	19·0	0·9	4·4	20·0	1·3	6·4
1922, -	12·6	2·0	16·1	15·0	1·5	9·7	18·0	0·6	3·6
1923, -	12·8	1·0	8·0	9·0	0·8	8·7	11·0	0·9	8·3

Diphtheria.—The prevalence of this disease in the Middle Ward District was somewhat similar to the previous year, while the death-rate and the fatality-rate was reduced by one-half. In the Upper Ward District there was a considerable decline in the number of cases and the death-rate, but the fatality-rate showed only a slight decline. In the Lower Ward District the fatality-rate was also high.

The circular issued to medical practitioners in August, 1922, pointing out the importance of the early administration of antitoxin, has, I am afraid, not resulted in much improvement, as over 80 per cent. of the cases admitted to hospital did not receive antitoxin before admission, although the distribution of antitoxin from hospitals, health centres, and police stations is still continued. In one outbreak in the Middle Ward District six deaths occurred — two in children under one year, three in children under three years, and one a child of ten years. This emphasises what is well known in all acute infections—the younger the child the greater the danger of a fatal result.

SCARLET FEVER.

A—Cases per 10,000 population.

B—Deaths per 10,000 population.

C—Deaths per 100 cases.

	Middle Ward.			Upper Ward.			Lower Ward.		
	A	B	C	A	B	C	A	B	C
1891-95, -	74.2	2.2	3.06	78.8	1.77	2.3	55.1	2.6	4.6
1896-1900,	61.3	2.4	3.98	82.7	2.28	2.7	58.5	2.4	4.0
1901-05, -	34.4	1.3	3.90	45.6	0.97	2.13	29.6	0.9	2.9
1906-10, -	46.7	1.1	2.54	55.2	0.70	1.27	42.1	1.2	2.7
1911-15, -	57.0	1.3	2.43	60.3	1.14	1.9	59.0	1.6	2.8
1916-20, -	43.6	0.9	2.61	35.0	0.5	1.5	21.0	0.2	1.2
1921, -	56.1	1.1	2.11	56.3	0.2	0.3	25.7	—	—
1922, -	56.1	1.1	2.06	85.9	2.3	2.7	23.8	0.3	1.4
1923, -	53.3	0.9	1.77	55.5	0.6	1.1	31.4	—	—

Scarlet Fever.—The prevalence of scarlet fever has been at a fairly high level during the last four years, following upon a period of three years moderately low. In the Middle Ward District the incidence was practically the same as the previous year, but the fatality-rate shows a slight decrease. In the Upper Ward District there was a considerable decline in the number of cases, and the fatality-rate also showed a decrease when compared with the previous year. In the Lower Ward District the incidence of the disease was a little higher than the previous year, but no deaths occurred.

The type of the disease continued mild, as evidenced by the lower fatality-rate. In the admissions to the County Hospital, Motherwell, where 19 deaths occurred, 11 were of the septic type and 1 toxic.

TYPHOID OR ENTERIC FEVER.

A.—Cases per 10,000 population.

B.—Deaths per 10,000 population.

C.—Deaths per 100 cases.

	Middle Ward.			Upper Ward.			Lower Ward.		
	A.	B.	C.	A.	B.	C.	A.	B.	C.
1891-95, -	30.9	4.2	11.95	12.2	1.5	12.4	14.0	2.2	15.5
1896-1900,	20.7	2.6	12.73	6.9	1.2	17.6	11.3	1.5	13.0
1901-05, -	15.6	2.1	13.54	4.9	0.9	18.8	8.8	1.2	13.3
1906-10, -	10.4	0.9	9.40	2.9	0.5	17.4	7.6	0.6	8.4
1911-15, -	5.4	0.5	11.09	1.4	0.3	23.3	2.5	0.5	19.2
1916-20, -	4.0	0.5	12.74	0.7	0.02	5.9	1.7	0.06	3.8
1921, -	4.8	0.6	13.2	0.2	—	—	0.6	—	—
1922, -	2.0	0.1	8.7	—	—	—	0.3	—	—
1923, -	2.6	0.2	9.2	0.4	0.2	50.0	0.6	—	—

Typhoid or Enteric Fever.—The diagnosis of this disease is surrounded with great difficulty, and, as a rule, every year patients are notified who are afterwards found to be suffering from other ailments, and patients suffering from a mild type of the disease often escape recognition.

In Table C it will be noted that one death from this disease was registered in the Upper Ward District. This case came to light through the registrar's return of deaths, the death having been certified as due to enteric fever after a post-mortem examination in the Western Infirmary, Glasgow, where the patient had been admitted supposed to be suffering from appendicitis.

The outdoor medical staff pay particular attention to the question of "carriers," and during the year one "carrier" was discovered in the Middle Ward District. Particulars of this case will be found in the report for the Middle Ward District, which is issued separately.

The statistics given in the tabular statement show that this disease is being kept well under control, the incidence in the Middle Ward showing a decrease from 30·9 cases per 10,000 of the population to 2·6 per 10,000 in the year 1923.

MEASLES AND WHOOPING-COUGH.

DEATH-RATES PER 10,000 OF THE POPULATION.

	MEASLES.			WHOOPING-COUGH.		
	Middle Ward.	Upper Ward.	Lower Ward.	Middle Ward.	Upper Ward.	Lower Ward.
1891-95,	- 9·3	3·4	5·2	6·2	5·6	2·8
1896-1900,	- 6·5	2·2	6·2	5·2	2·9	5·3
1901-05,	- 4·2	0·5	4·8	5·7	2·3	6·3
1906-10,	- 5·7	2·1	4·5	4·8	2·7	5·4
1911-15,	- 5·3	0·8	3·0	6·1	1·6	3·4
1916-20,	- 4·4	1·3	2·0	3·9	1·8	2·6
1921,	- 0·4	—	0·6	6·0	3·6	1·0
1922,	- 6·3	1·7	3·6	3·7	2·1	0·9
1923,	- 1·9	0·8	0·6	2·8	2·5	1·5

Measles and Whooping-Cough.—There was a considerable decline in the number of deaths from these two diseases, the deaths from measles amounting to 51, compared with 166 in the previous year, and the deaths from whooping-cough amounted to 84, compared with 98. Thirty-five per cent. of the deaths from these two diseases occurred in children under one year of age.

No special measures have yet been attempted for combating these diseases, but during the current year the Scottish Board of Health are offering some financial aid towards preventive measures, including

some form of notification, visitation, nursing, and hospital accommodation.

In connection with this matter it may be pointed out that notification of these two diseases was arranged for many years ago, asking headmasters of all public schools to intimate each case so soon as it came to their knowledge, but this fell into disuse during the war, although it is again being put in operation. The visitation of cases is carried out by the Public Health staff as soon as possible after notification is received, this work being generally carried out by the Nurse Inspectors or the Nurse Health Visitors, but during a period of epidemic prevalence the local Sanitary Inspectors also assist. Although there is no separate hospital accommodation, serious cases have to be admitted to the various institutions from time to time.

PULMONARY TUBERCULOSIS.

Morbidity. A—Cases per 10,000 population.

Mortality. B—Deaths per 10,000 population.

Fatality. C—Deaths per 100 cases.

	Middle Ward.			Upper Ward.			Lower Ward.		
	A.	B.	C.	A.	B.	C.	A.	B.	C.
1891-95 -	—	13·5	—	—	12·0	—	—	12·8	—
1896-1900,	—	11·4	—	—	11·9	—	—	11·7	—
1901-05, -	—	10·0	—	—	10·5	—	—	12·4	—
1906-10, -	14·6	8·8	60·3	8·4	8·1	97·2	12·2	11·3	87·7
1911-15, -	16·2	8·1	50·3	11·4	7·0	64·0	14·5	6·8	47·4
1916-20, -	16·4	7·5	46·1	9·6	6·3	65·1	14·0	7·3	52·4
1921, -	17·3	6·3	36·9	7·0	4·3	60·6	15·3	4·0	26·1
1922, -	16·3	5·8	35·6	10·2	4·5	43·7	13·9	7·3	52·4
1923, -	18·1	6·3	34·8	10·7	6·9	64·7	14·3	8·2	57·8

NON-PULMONARY TUBERCULOSIS.

Morbidity. A—Cases per 10,000 population.

Mortality. B—Deaths per 10,000 population.

Fatality. C—Deaths per 100 cases.

	Middle Ward.			Upper Ward.			Lower Ward.		
	A.	B.	C.	A.	B.	C.	A.	B.	C.
1891-95, -	—	9·7	—	—	6·2	—	—	7·1	—
1896-1900,	—	8·9	—	—	4·4	—	—	6·8	—
1901-05,	—	8·2	—	—	4·9	—	—	7·2	—
1906-10,	—	8·9	—	—	4·4	—	—	7·6	—
1911-15,	—	6·9	—	—	2·8	—	—	5·8	—
1916-20,	16·3	5·3	32·4	5·6	3·3	60·0	10·3	3·5	35·5
1921,	21·9	4·7	21·6	6·8	3·2	46·8	10·0	2·7	26·6
1922,	22·2	4·8	22·0	6·8	3·6	53·1	11·2	3·6	32·3
1923,	20·4	5·2	25·9	6·2	2·3	36·6	13·0	2·5	19·5

Tuberculosis.—The provision of institutional treatment for tuberculosis was commenced in 1905, and notification by medical practitioners was at first arranged for on a voluntary basis. In the latter part of the year 1907 the disease was made compulsorily notifiable throughout Scotland by an Order of the Local Government Board, and on 1st July, 1914, non-pulmonary forms of the disease were dealt with in a similar manner. The institutions now dealing with the isolation and treatment of tuberculosis in the County area are given on page 18.

The cases of pulmonary tuberculosis notified during the year show a slight increase, numbering 519, compared with 462 in the year 1922, whereas non-pulmonary notifications show a slight decrease, amounting to 546, compared with 562.

There are still a number of cases in which medical practitioners fail to carry out their legal duties and notify “forthwith on becoming aware that a patient is suffering from an infectious disease.” Some cases are not notified until death is approaching, and in others the case only becomes known when the local registrar’s return of deaths is received. Thus, of the 206 pulmonary deaths registered, 22 were not notified cases, and 129 of the deaths occurred within six months of notification.

The preceding tables show that in all three areas there has been a slight increase in the death-rate from pulmonary tuberculosis during the year 1923, when compared with the previous year, but since the commencement of County administration there has been a marked fall in the deaths from all forms of the disease. It should be noted, however, that the decline in the death-rate is not fully shown by the figures given, as only deaths definitely certified as due to tuberculosis are included, whereas in the earlier years of County administration there was considerable difficulty in getting an accurate register of deaths caused by tuberculosis, owing to the rather vague statement of the cause of death in the medical certificates. Such terms as “pulmonary congestion,” “congestion of the lungs,” “miner’s asthma,” and “meningitis” were frequently stated as the cause of death, and, no doubt, a large proportion of these were due to tuberculosis.

INSTITUTIONAL ACCOMMODATION.

Acute Infectious Diseases.—The County Hospital, Motherwell, provides not only for the Middle Ward District, but admits cases from the Upper and Lower Ward Districts when accommodation is available. The extensions at this hospital, referred to in last year’s

report, include a two-storey pavilion providing 62 beds, and in the basement there is a laboratory, dispensary, and electrical department. The requisite additions to the nurses' accommodation is also being provided.

In the Upper Ward District, where cases have been accommodated in the Lanark Burgh Hospital, the proposed new isolation hospital has not yet been commenced, but it is hoped that the work will be put in hand shortly.

Smallpox.—Although no hospital has been definitely provided for smallpox within the County, there are small institutions in the Middle Ward District that could deal with a few cases, and as the disease seldom exists in the County without first being present in the City of Glasgow, where the Corporation have special accommodation set aside for the purpose, probably the most economical plan would be to endeavour to find accommodation in the City Smallpox Hospital, as, with motor ambulances, patients can be removed a considerable distance. If an outbreak developed to any extent it would be possible to utilise one of the more outlying institutions in the Middle Ward District.

Tuberculosis.—By agreement between the three District Committees, all the accommodation in the County for the treatment of tuberculosis is available to each of the Districts, although the most complete accommodation is provided by the Middle Ward District Committee. At Hairmyres Colony many patients are admitted from areas outside the County districts, and even outside the County of Lanark altogether.

Maternity and Child Welfare Scheme.—The Maternity Hospital at Bellshill still continues to be used for simple and complicated cases of labour, with beds for ante-natal and post-natal cases. The Convalescent Home at Calderbank House is utilised for mothers and children, and the small institution at Blantyre is chiefly used as a Babies' Home. These institutions are all in the Middle Ward District, but cases are also admitted from the Upper Ward and the Lower Ward Districts.

All the institutional accommodation in the County is provided by each of the three District Committees, and details of the work carried out at the various institutions are given in the District Reports. The following tabular statement shows the institutions throughout the County and the nature of the work carried out :—

INSTITUTION.	Nature of Work.
<i>Middle Ward District—</i>	
County Hospital, Motherwell.	All forms of acute infectious disease ; surgical tuberculosis ; indoor and outdoor treatment of venereal diseases ; X-rays, with radiographic equipment. Recognised as a training school for nurses by the General Nursing Council.
Hairmyres Colony, by East Kilbride.	Treatment and training of adult cases of tuberculosis ; treatment and education of children ; especially those in early stages of the disease and those in whom the disease is quiescent.
County Sanatorium, Stonehouse,	Non-pulmonary forms of tuberculosis, including orthopædic treatment — both sexes. X-ray, with radiographic equipment.
County Sanatorium, Shotts,	Pulmonary tuberculosis — both sexes Outdoor V.D. clinic for males and females.
County Sanatorium, Uppertown, Longriggend,	Pulmonary tuberculosis — both sexes.
County Hospital, Bellshill,	Maternity Hospital for simple and complicated cases of labour. Has special wards for ante-natal and post-natal cases. Recognised by the Central Midwives Board as a training school for midwives.
County Convalescent Home, Calderbank House, Baillieston,	For mothers and children under 5 years requiring convalescent treatment.
County Hospital, Blantyre,	For mothers and babies.
<i>* Upper Ward District—</i>	
District Sanatorium, Roadmeetings, Carluke,	Pulmonary tuberculosis—both sexes.
<i>Lower Ward District—</i>	
† Lightburn Joint Hospital, Shettleston.	All forms of acute infectious disease one pavilion is set aside entirely for the treatment of Lower Ward tuberculosis patients ; out-door clinic for V.D. Recognised as a training school for nurses by the General Nursing Council.

* Upper Ward acute infectious diseases are admitted to the Lanark Burgh Hospital by arrangement with the Lanark Town Council when accommodation is available pending the provision of a new district isolation hospital.

† This institution is owned jointly by the Lower and Middle Ward District Committees and by the Corporation of Glasgow in the following proportions :—Lower Ward, $\frac{5}{8}$ ths ; Middle Ward, $\frac{2}{8}$ ths ; and Glasgow, $\frac{1}{8}$ th.

VENEREAL DISEASES.

Full details of the scheme operating in the County of Lanark, including the Burghs of Airdrie, Coatbridge, Hamilton, Motherwell and Wishaw, Rutherglen, Lanark, Biggar, and Kirkintilloch were given in the Annual Report for 1921. In the County area there are three clinics, viz., one at the County Hospital, Motherwell; one at Lightburn Joint Hospital, Shettleston; and one at the County Sanatorium, Shotts. A tabular statement showing the work carried out at these centres during the year ended 15th May, 1924, is here incorporated. In addition to the three clinics in the County area there are also three clinics situated in the Burgh areas, viz., Coatbridge, Wishaw, and Hamilton.

REFRACTORIES INDUSTRIES (SILICOSIS) SCHEME.

In the Middle Ward District nine first examinations and eight secondary examinations were carried out at Birkenshaw Brick Works, Larkhall.

In the Upper Ward District six first examinations and thirteen secondary examinations were carried out at the works of the Clydesdale Brick and Quarry Company, Auchenh Heath.

No examinations were carried out in the Lower Ward District.

MATERNITY SERVICE AND CHILD WELFARE.

The schemes drawn up under the Notification of Births (Extension) Act, 1915, are all administered by the respective District Committees, and the details of the work carried out under these schemes are given in the District Reports. Two Medical Officers are employed by the Middle Ward District Committee to devote the whole of their time to this work, and the Assistant Health Officers also act as Medical Officers at various centres. In addition to the staff of Nurse Health Visitors employed by the District Committees, the services of District Nurses are obtained in certain rural areas as part-time Health Visitors.

Details of the work carried out at Bellshill Maternity Hospital, Calderbank Convalescent Home, and the small Institution at Blantyre are given in the Report for the Middle Ward District.

Table D shows the births registered, births notified, visits made by the Nurse Health Visitors, the attendant at confinement as ascertained at the first visit, deaths registered, and the infant death-rate.

Table D.

			Middle Ward.	Upper Ward.	Lower Ward.
Births—					
Registered,	...	...	6,218	1,144	664
Notified—					
Alive, ...	...	...	6,027	1,116	608
Stillborn,	...	...	218	33	19
Attendant at Confinement—					
*Doctor, ...	...	...	3,006	1,022	296
Midwife,	...	...	2,856	108	288
Handywoman,	...	...	90	18	—
Not stated,	...	...	4	—	—
Infant Deaths—					
Registered,	...	...	481	74	48
Rate per 1,000 Births,			77·3	64·6	72·3
Number of Visits—					
First, ...	...	...	5,956	885	565
Subsequent,	...	...	57,019	7,286	2,895
Special, ...	...	...	3,085	303	111
Total, ...	...	...	66,060	8,474	3,571

* The majority of these confinements were attended by a midwife or handy woman, as well as a doctor.

Infant Mortality. — In Table E the infant deaths in each of the three Districts are classified according to cause, and shows that the greatest danger to infant life takes place in the first few days and weeks. So-called “prematurity” is still the greatest cause of mortality. This cause, along with others, such as atrophy, debility, marasmus, and convulsions, requires to be carefully investigated, as these terms evidently cover both organic and functional defects which are ill understood. Acute infectious diseases, such as measles and whooping-cough, are very dangerous to infant life, and when the diseases are epidemic the infant should be carefully protected from infection.

During the year under review the infant mortality rates were considerably lower than the previous year. This decrease was chiefly due to the decrease in deaths from diseases of the respiratory system—pneumonia and bronchitis.

TABLE E.—INFANT DEATHS.

	Middle Ward.			Upper Ward.			Lower Ward.		
	Deaths under 4 weeks.	Deaths 1 to 12 months.	Total under 1 year.	Deaths under 4 weeks.	Deaths 1 to 12 months.	Total under 1 year.	Deaths under 4 weeks.	Deaths 1 to 12 months.	Total under 1 year.
1. Prematurity, ...	96	9	105	17	—	17	12	—	12
Congenital Mal- formation, ...	24	10	34	2	2	4	1	1	2
Atelectasis, ...	7	—	7	1	—	1	1	—	1
Injury at Birth, ...	8	—	8	1	—	1	2	—	2
2. Atrophy, Debility, and Marasmus,...	55	24	79	9	3	12	10	5	15
3. Diarrhœa, ...	5	52	57	—	4	4	—	5	5
Other Digestive Diseases, ...	2	10	12	—	1	1	—	1	1
4. Pneumonia, ...	2	46	48	—	9	9	—	1	1
Bronchitis, ...	4	17	21	—	1	1	—	2	2
Other Respiratory Diseases, ...	1	—	1	—	1	1	—	—	—
5. Tuberculosis— Pulmonary, ...	—	2	2	—	—	—	—	—	—
Meningeal, ...	1	12	13	—	—	—	—	—	—
Abdominal, ...	—	8	8	—	1	1	—	1	1
Others, ...	—	2	2	—	—	—	—	—	—
6. Convulsions, ...	3	8	11	3	3	6	—	1	1
Meningitis, ...	—	4	4	—	—	—	—	2	2
Other Nervous Diseases, ...	—	—	—	—	—	—	—	—	—
7. Measles, ...	—	13	13	—	1	1	—	—	—
Whooping Cough, Diphtheria, ...	—	22	22	—	9	9	—	3	3
Scarlet Fever, ...	—	4	4	—	—	—	—	—	—
8. Syphilis, ...	—	3	3	—	—	—	—	—	—
9. Violence, ...	—	—	—	—	—	—	—	—	—
10. All Other Causes,	14	13	27	5	1	6	—	—	—

Maternal Mortality.—Careful inquiry is now being made into all deaths that occur within four weeks of pregnancy, with a view to ascertaining the causes of these deaths, and considering what steps should be taken to prevent them. The following tabular statement shows the deaths which occurred during the year, classified according to cause :—

	Middle Ward.	Upper Ward.	Lower Ward.
Puerperal Sepsis, - - -	17	—	2
Albuminuria and Eclampsia, -	10	1	—
Hæmorrhage, - - -	3	—	1
Cardiac Failure and Shock, -	6	—	—
Abortion, - - - -	1	—	—
Toxæmia of Pregnancy, -	5	—	1
Other Diseases and Accidents of Pregnancy, - - -	8	2	—
	50	3	4

Puerperal fever has been a notifiable disease since the Notification Act came into operation, but it is very regrettable that the requirements of the statute have not been complied with until a few years ago. The tabular statement here incorporated shows how few cases were notified in the earlier years, and that until the year 1919 little information was available, either from compulsory notification or death certification; in fact, there is reason to fear that medical practitioners try to hide these deaths under some other name.

PUERPERAL FEVER—CASES AND DEATHS DURING QUINQUENNIAL PERIODS
1891-1915, AND FOR THE YEARS 1916-1923.

			Middle Ward.		Upper Ward.		Lower Ward.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Annual average, 1891-95,			16·0	3·8	1·0	0·4	2·8	0·4
„ „ 1896-1900,			11·0	3·6	1·8	1·0	2·6	0·2
„ „ 1901-05.			12·4	5·8	1·4	0·4	4·8	1·8
„ „ 1906-10,			26·0	13·0	3·0	1·2	6·0	2·6
„ „ 1911-15,			21·2	9·8	0·6	0·2	6·0	2·8
1916,	-	-	22	10	1	1	2	2
1917,	-	-	18	10	—	—	3	1
1918,	-	-	15	7	—	—	1	1
1919,	-	-	40	15	3	—	4	2
1920,	-	-	61	23	2	1	6	—
1921,	-	-	68	25	—	—	4	2
1922,	-	-	67	20	1	—	1	—
1923,	-	-	62	17	1	—	6	2

Early in the current year there was issued by the Scottish Board of Health the "Report of the Departmental Committee on Puerperal Morbidity and Mortality," the Committee having been appointed to "inquire into the incidence of puerperal morbidity and mortality in Scotland, with special reference to the causes contributing thereto, and to suggest any remedial measures." Evidence relative to the conditions prevailing in the County area was given to the Committee by Drs. Dick and Lang, Assistant Medical Officers of Health; Dr. Reid, Physician-Superintendent of the County Hospital, Motherwell; and Dr. Thomson, Physician-Superintendent of the County Maternity Hospital, Bellshill. The evidence submitted and the suggestions made by those members of the staff, as well as the recommendations made by the Departmental Committee, are summarised in the Report for the Middle Ward District, which is issued separately, but it is satisfactory to know that the recommendations have nearly all been in operation in the County area for some years now.

Child Welfare Centres.—A considerable amount of the time of the medical and nursing staff continued to be taken up in dealing with applications from families in necessitous circumstances. Two additional Centres were opened in the Middle Ward District during the year, viz.:—Glenboig and Cadzow. Details of the work carried out at the various Centres are given in the District Reports.

Squint.—Early in the year the Scottish Board of Health drew attention to the high percentage of squint cases in school children in Lanarkshire, and asked whether the Local Authorities were prepared to deal with cases of squint occurring in children of pre-school age. Arrangements were therefore made for the services of four ophthalmic surgeons, who are employed by the Education Authority to treat such cases, either at certain of the Child Welfare Centres or at places where an eye clinic had already been established by the Education Authority.

HOUSING.

The Housing, &c., Act, 1923, provides for a Government contribution in respect of each house erected by a Local Authority under the Act, the contribution being at the rate of £6 per house, payable annually for a period of twenty years. The Act also empowers Local Authorities to promote the building of houses by means of loans and grants to private persons, building societies, &c. This contribution is considered insufficient, so far as Scotland is concerned, it being generally admitted that climatic conditions in Scotland render it necessary that houses built there must in certain respects be of more substantial construction than is necessary in England.

The number of **Occupied** and **Unoccupied Houses** as given in the Valuation Roll, for each year since 1913, was as follows:—

Years	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
UPPER WARD—											
Occupied, -	9,333	9,500	9,576	9,524	9,541	9,499	9,652	9,719	9,754	9,858	10,109
Unoccupied,	331	301	241	290	262	230	178	136	112	102	110
MIDDLE WARD—											
Occupied, -	39,986	40,417	40,730	40,834	40,817	40,920	41,227	41,309	41,565	42,507	44,020
Unoccupied,	1,175	894	794	641	614	408	349	285	157	706	554
LOWER WARD—											
Occupied, -	5,602	5,650	5,658	5,704	5,700	5,744	5,760	5,757	5,779	5,842	6,092
Unoccupied,	146	91	92	76	81	54	39	32	14	18	53
COUNTY—											
Occupied, -	54,921	55,567	55,964	56,062	56,058	56,163	56,639	56,785	57,098	58,207	60,221
Unoccupied,	1,652	1,286	1,127	1,007	957	692	566	453	283	826	717
TOTAL HOUSES,	56,573	56,853	57,091	57,069	57,015	56,855	57,205	57,238	57,381	59,033	60,938

The figures referring to unoccupied houses include a large number which were in course of erection and were occupied shortly after the Valuation Roll was made up. The remainder, which are few in number, were mansion houses, houses about farm steadings, and houses not fit for occupation.

The total number of houses in the County in 1913, occupied and unoccupied, was 56,573, and by the end of 1923 this figure had increased to 60,938, or an addition of 4,365 houses, but the increase in occupied houses during the same period amounts to 5,300. This difference is probably accounted for by a transference from the group of so-called unoccupied to the occupied, the relative unoccupied figures in 1913 being 1,652, compared with 717 in 1923. Many of the unoccupied houses in 1913 were unsatisfactory, which means that the tenants had been forced by circumstances to accept houses which were in an unsatisfactory condition.

The number of persons per house in the County remains much the same as in 1913, viz., 5 per house.

State-Aided Schemes. — Over 4,000 houses were provided by the end of the year under the State-aided schemes, and about 1,500 are still to be or are being provided. Details regarding the parishes in which these houses were erected are given in the District Reports.

Insanitary Areas. — It is sad to think that so many condemned houses have, through lack of new dwellings, been allowed to remain in existence. Many of these houses were condemned before 1914, and many more since then have been added to this category. In many parts of the County hundreds of these houses are a disgrace to civilisation, and there is no appearance of any remedy being provided under our present State-aided schemes.

In connection with the Government proposals for the improvement of insanitary areas, the information prepared for the Scottish Board of Health showed that there were 3,589 houses in the County area which could be compulsorily closed, but owing to the shortage of houses it has so far been impossible to take any action with regard to the demolition of such properties, which the owners are quite willing to do.

In view of the limited amount of the total grant which the Board were prepared to contribute towards meeting the annual loss on the improvement of such areas, only a limited number of houses are proposed to be erected by the District Committees. The Upper Ward District Committee propose to erect 100 houses; the Middle Ward District Committee, 610 houses; while the Lower Ward District Committee are taking no action in the matter. We have thus schemes for the erection of 710 houses, whereas the number of houses necessary amount to 3,589. These State-aided slum clearance schemes will, therefore, have little or no effect in dealing with the problem.

Housing Condition of Miners. — This was the subject of a special report issued in 1910, giving details of construction and occupancy, as requested by the Local Government Board. This showed that the housing of the mining community was largely provided by the mine-owners themselves, in localities convenient to the mines, and during the whole period of County Public Health administration there has been a gradual and increasing effort to improve the sanitary arrangements at these dwellings.

The first new houses provided with modern sanitary conveniences — a water-closet for each house and scullery with slop sink — were erected at Auchengeich Colliery, in the Lower Ward District, in the year 1907.

The first portion of the mining village of Annathill, in the Middle Ward District, was provided with midden privies, but the Architect

in charge was solely responsible for this. When the second portion of the village was erected, water-closet accommodation was provided, and when a meeting was afterwards held with the owners' representatives they at once agreed to the provision of water-closets to the first erected dwellings, in the proportion of one to every two houses, and the privy-middens were removed.

Among the best houses provided by coalowners in this County were those built at Douglas West Colliery, in the Upper Ward District, in the year 1913, just outside the policies of Douglas Castle, and additional houses of the same type have been erected since that date. Although only two apartments, they have a floor area or cubic space equal to a three or four apartment house.

Houses of a somewhat similar type to the above were also erected, at Wilsontown, in the year 1914.

During the year 1923 plans have been lodged with the Lower Ward District Committee for the erection of 100 houses of two apartments at Robroyston, and during the current year additional plans have been passed. The houses comply with the requirements of the Housing Act, 1923, and are eligible for the subsidy offered for the provision of houses of the size referred to.

It is worthy of note that since the year 1900 no one-apartment houses have been built by coalowners throughout the County.

With regard to old dwellings, there has been for many years an effort made to provide modern sanitary conveniences wherever that was practicable. For this it is necessary to be sure of an abundant water supply, an efficient drainage system, and means of sewage disposal. One of the most recent examples is the village of Ponfeigh, in the Upper Ward District, where the Company have carried out improvements in the existing houses which necessitated the reconstruction and enlargement of the existing sculleries, the laying on of gravitation water to each, providing sink and wash-tub, and water-closet, which is entered from within. At properties in the Middle Ward area similar improvements have been carried out. For example, at Springhill Buildings, Manse Road, and Jordan Terrace, Shotts, the Company have scrapped the existing sculleries and staircases, remodelled these, and provided inside sinks, wash-tubs, wash-boilers, water supply, water-closets, and coal cellar in every dwelling.

It is to be regretted, however, that the provision of modern sanitary conveniences has not yet been found practicable in certain areas. In one instance, at Bothwellpark Rows, the owners have for many years been anxious to provide water-closets for a large group of miners' dwellings, but, owing to inability to find a sewerage system with a suitable sewer outfall, it has not been found practicable to approve of the work being carried out.

In another instance, Calderbank Square, the provision of modern domestic and sanitary conveniences has been considered from time to time, but proper drainage facilities have never been provided, as it was estimated that the drainage rate necessary if a special drainage district were formed would be prohibitive.

School Sanitation.

The provision of sanitary conveniences in connection with school buildings has made considerable progress in recent years. Wash-hand basins in sufficient numbers, as well as suitable cloakrooms, are provided, but the provision and construction of water-closets is still a matter that requires further consideration. In ordinary dwelling-houses and public buildings these are always found convenient to the main rooms, and there are secondary schools where these are to be found inside the building, but in primary schools the water-closets are generally situated at the most remote part of the playground, so that the child requires to walk a considerable distance to get to these conveniences, and in wet and stormy weather this arrangement is very inconvenient. In the days when dry closets were almost universal this was no doubt the only reasonable position for them to occupy, but with water-closets of an approved type there seems no reason why they should not be placed in an annex to the main building, with an entrance from the inside as well as the outside.

Recently the question of construction has been raised. As pedestal closets are apt to be misused by children standing upon them and soiling the seat, unless they are supervised and instructed, a form of closet has been suggested by the Education Authority in which there is no seat, children having simply to squat over the aperture, which is oblong shaped and has a breadth of ten inches, and the excreta falls into the basin. Children taught to use a closet of this type will naturally tend to squat when at home, as they are not being trained at school to use a pedestal closet. It is the experience of the Sanitary Inspector's staff that when midden-prives were replaced by water-

closets great difficulty was experienced in getting the occupants of the houses to use them properly, more especially when there was more than one family to each closet and when these were placed at a distance from the dwelling. In recent years an effort has been made to obtain a water-closet for each dwelling, and it is sad to think that a child when at school will not have an opportunity of using a convenience of this type.

Milk and Dairies (Amendment) Act, 1922.

GRADED MILK.

Under the above Act an Order was issued on 11th December, 1922, authorising Local Authorities to issue licences for the sale of graded milk as from 1st January, 1923, the designations being as follows:—

- (1) Certified.
- (2) Grade A (Tuberculin Tested).
- (3) Grade A.

Grade A (Pasteurised).

- (4) Pasteurised.

The conditions to be observed in this Order were summarised on page 76 of last year's report.

An amending Order was issued by the Board on 15th June, 1923, which took effect as from 1st July, containing one or two minor alterations on the original Order. The conditions as amended may be briefly summarised thus:—

General Conditions.—The method of production, storage, and distribution of the various grades to be controlled on the basis of an Inspection Report Card (Score Card).

Licence-holders shall keep graded milk separate, and, if a producer selling by retail, shall keep records of quantities sold; if a dealer, the quantities purchased and sold, and the name and address of persons from whom he buys the milk.

Persons authorised by the Board or Local Authority have right of entry to premises for the purpose of inspection and taking samples.

Special Conditions applicable to Various Grades.

Certified Milk.—Examination of herd by a veterinary surgeon three times a year, at two of which the tuberculin test must be applied. Provided that where two successive tests of herds at intervals of six months have revealed no reactors, and where only

animals from the licensed herds are added it will only be necessary to carry out subsequent tuberculin tests on such herds at intervals of twelve months. Animals reacting to the tuberculin test or showing evidence of disease which will affect the milk to be removed from the herd.

The milk to be cooled and bottled in sterilised bottles immediately after production and sealed with discs and caps bearing the name and address of producer, the date of production, and the words "Certified Milk," for delivery to the consumer.

Grade A (Tuberculin Tested).—The same conditions as for "Certified Milk," with the exception that, instead of being immediately bottled, it may be sent out in sealed containers containing the words "Grade A (Tuberculin Tested)" and labelled with the name and address of the producer, the date, and time of production.

In the case of persons other than producers, except where the milk is delivered to the consumer in the containers in which it is received, it shall be delivered either in bottles or in other suitable containers of not less capacity than two gallons.

The bottles shall be sterilised by steam and closed by a suitable tightly fitting disc with a suitable cap overlapping the lip of the bottle. The cap shall bear the name of the dealer by whom the milk was bottled and the address of the licensed bottling establishment.

Grade A.—The conditions for the examination of the herd are the same as for the above two grades, with the exception that the tuberculin test is not applied. No animal which has reacted to the tuberculin test shall form part of a grade A herd, and only the milch cows of the herd require to be certified. This milk shall not be treated by heat unless under licence to sell it as "Pasteurised" (see below), in which case the designations will be "Grade A (Pasteurised)."

The conditions applying to persons other than producers are the same as those for Grade A (Tuberculin Tested).

Pasteurised Milk.—Pasteurisation, *i.e.*, retained at a temperature from 145 to 150 degrees F. for half-an-hour, and then cooled over a covered cooler to 50 degrees F. Apparatus and methods to be approved by the Local Authority, and milk to be pasteurised once only. Vessels containing this milk to be labelled "Pasteurised Milk."

Samples of the above grades of milk taken at any time before delivery to the consumer shall comply with the following standard of bacterial content, and contain not less than 3·5 per cent. of milk fat, *viz.* :—

Certified Milk and Pasteurised Milk.

Not more than 30,000 bacteria per c.c.

No coliform bacillus in one-tenth of a c.c.

Grade A (Tuberculin Tested) and Grade A Milk.

Not more than 200,000 bacteria per c.c.

No coliform bacillus in one-tenth of a c.c.

The following tabular statement gives all the licence-holders for the various grades produced in the County, together with the number of cows in the herd and where marketed.

UPPER WARD DISTRICT.

Grade A (Tuberculin Tested).

Name and Address.	No. of Cows.	How Marketed.
Andrew Murdoch, Teaths, Lesmahagow,	43	Partly retailed in bottles and the surplus wholesaled as Grade A (T.T.) Milk.
T. B. McGregor, Lesserlinn, Lanark,	40	Do. do.
Gavin Hamilton, Auldtoun, Lesmahagow,	24	Wholesaled as Grade A (T.T.) Milk.
C. M. Douglas, Hillside, Lesmahagow,	32	Do. do.
Jas. A. Brown, Cormiston Towers, Biggar,	49	Do. do.
John Kirkwood, Scorrieholm, Lesmahagow,	29	Do. do.
Jas. Hodge, Brownhill, Carnwath,	17	Do. do.

Grade A.

A. Affleck, Barnhill, Ponfeigh,	26	Wholesaled as ordinary milk.
Jas. Brown, Wolfcrooks, Ponfeigh,	24	Do. do.

MIDDLE WARD DISTRICT.

Certified.

Lord Hamilton, Dalzell Home Farm, Motherwell,	18	Retailed as Certified Milk, surplus wholesaled as Grade A (T.T.).
Hairmyres Colony, East Kilbride (owned by the Middle Ward District Committee),	37	Used by Institution.

Grade A (Tuberculin Tested).

Jas. Murray, Stramolloch, Chapelton,	22	Wholesaled as ordinary milk.
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Grade A.

Andrew Wood, Nerston, East Kilbride.	32	Wholesaled as ordinary milk.
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As prescribed by the Order, the clinical examinations and tuberculin tests have been carried out periodically by the County and District Veterinary Surgeon.

Samples of milk have also been taken by the Food and Drugs Inspector, and these were examined in the Bacteriological and Chemical Laboratories. Except in a few instances the samples have always been found to comply with the conditions laid down. In the few instances in which they were found unsatisfactory the producers were communicated with, and at once took steps to put the matter right.

Although quite a number of licences have been granted to producers in the County area, a very little of the milk is sold in the district, the bulk of it going to Edinburgh and Glasgow. The certified milk from Dalzell Home Farm is nearly all retailed in Motherwell, Wishaw, and Hamilton. Two producers in the Upper Ward District have recently commenced retailing Grade A (Tuberculin Tested) milk in the Burgh of Lanark and in the town of Carluke at little extra cost to the consumer. Although not yet successful in disposing of all the milk in this way, they are hopeful of doing so, as the demand is increasing. At the Child Welfare Centres at Lanark and Carluke the Medical Officer, when giving an order for milk for necessitous cases recommends that tubercle-free milk be obtained.

All the Middle Ward institutions, with the exception of the County Sanatorium, Shotts, have been supplied with Grade A (Tuberculin Tested) milk for some months, and during the current year arrangements have been made for a supply being obtained for the Upper Ward District Sanatorium at Roadmeetings.

The distribution of graded milk direct from the producer to the consumer should be encouraged wherever possible, and too much attention should not be paid to unimportant technical details. For example, the producer who retails his Grade A (Tuberculin Tested) milk in Lanark area has no steam plant for the sterilisation of his bottles as required by the Order. This was not allowed to interfere with the granting of a licence, as the method adopted of sterilizing the bottles in boiling water was quite satisfactory from a hygienic standpoint. Wire cages were provided, each holding twelve bottles.

and after the bottles have been thoroughly cleansed they are placed in the wire cages and immersed in the boiler for a few minutes. Samples of the milk taken from time to time show that this method is quite satisfactory, the bacterial content being excellent and well within the standard.

Applications were received from three farmers in the Upper Ward District for Grade A (Tuberculin Tested) licences, but on account of the number of reactors in the herds and the serious financial loss involved in the immediate disposal of the animals the applications were withdrawn. One of these applicants then applied for a Grade A licence, and this was granted early in the year. The Order which came into force on 1st July, however, provided that "no animal which, to the knowledge of the owner of the herd, has at any time been tested with tuberculin and has reacted to the test shall form part of or be added to the herd." This provision is unsatisfactory, as it may tend to discourage dairy farmers getting the tuberculin tests carried out. Had the farmer applied for a *Grade A* licence in the first instance there would have been no difficulty in granting a licence, but simply because he aims higher and has the tuberculin tests carried out, he is debarred from obtaining a Grade A licence, although he may have a better stock than a neighbouring farmer with such a licence who has not had the tuberculin tests carried out.

No licences have been granted for the sale of pasteurised milk. There are, however, various creameries within the County area and also outwith the boundary which submit the milk to a process of pasteurisation. The creameries are as follows:—Lesmahagow, Dolphinton, and East Kilbride, within the County area; and Kirkintilloch, Shettleston, and Coatbridge, outwith the area. At Shettleston and East Kilbride the full pasteurisation process is gone through for 30 minutes, while at Lesmahagow, Kirkintilloch, and Dolphinton what is known as flash pasteurisation is carried on. The milk from none of the creameries, however, is sold as pasteurised milk. In two of them—Kirkintilloch and Shettleston—the milk is bottled and labelled "Pure Milk."

Veterinary Inspection of Dairy Herds.

The inspection of dairy herds throughout the County was carried out as formerly by the Veterinary Inspector and his Assistant, although towards the end of the year the inspection was suspended,

owing to the prevalence of foot-and-mouth disease. The following tabular statement shows the work carried out in each district during the year :—

	Herds Inspected.	Cows Examined.	Milk Samples taken.	Cows found to be suffering from tubercle of the udder.
Middle Ward, -	675	13,790	54	17
Upper „	637	10,746	26	4
Lower „	148	3,638	16	6

The procedure generally followed by the Veterinary Surgeon is to make an inspection of all dairy herds in the County at least once a year. The greater part of this is done during the winter months, when the dairy stock is housed indoors, although a few inspections are made during the grazing season.

When a cow is suspected to be suffering from tubercle of the udder a milk sample is taken by the Veterinary Surgeon. If the sample taken proves positive, a certificate is issued to the Public Health Department, and a notice is thereupon sent to the farmer, directing his attention to the requirements of Section 5 of the Milk and Dairies (Amendment) Act, 1922, and at the same time the infected animal is kept under observation by the Sanitary Inspector until it has been disposed of, either by slaughter, when the Slaughter-house Superintendent is advised, or by sale, when information is forwarded to the Local Authority into whose area the animal has passed.

In former years the attention of the farmer was directed to the requirements of the Dairies, Cowsheds, and Milkshops Order, 1885, as amended by the Order of 1899, Article 3. The powers contained in these Orders regarding tubercle of the udder are somewhat similar to the powers contained in the Milk and Dairies (Amendment) Act, the power contained in the latter being no advance on the earlier statutes.

Uniformity of Meat Inspection.

Details of the work carried out at the public abattoirs are given in the District Reports.

In April, 1923, the Scottish Board of Health issued the Public Health (Meat Inspection) Regulations (Scotland) 1923, with schedules of instructions with reference to the methods of inspection of meat,

&c. These regulations provide for the appointment of meat inspectors and detention officers, and require a return showing (1) the number of animals slaughtered, (2) the number of carcasses inspected; and (3) the number and weight of carcasses seized.

Copies of the Regulations were sent to each slaughter-house, and the Upper Ward and the Middle Ward District Committees arranged the formal appointment of meat inspectors and detention officers. These appointments simply confirm the arrangements which have been in force for a number of years, and which are given in detail in the Review Report on Meat Inspection.

In the Lower Ward District no appointments were necessary, as there are no slaughter-houses within the area, and nearly all the meat sold in that area comes from the City of Glasgow.

In the month of May a circular letter was received from the Board stating that they proposed to issue revised regulations. These have been issued during the current year, and show only a few minor alterations.

Bacteriological Laboratory.

J. HUME PATTERSON, F.R.F.P.S.(Glasg.), D.P.H.

The following table shows the total number of specimens dealt with since the opening of the Laboratory in 1903, and the sources of supply :—

RECORD OF WORK DONE SINCE 1903.

Year.	Specimens.	Sources of Supply.						
		Med. Pract.	P.H. Staff.	Hosp. Staff.	Sch. Med. Staff.	County V.S.	P. H. V. Ss.	Slaugh. Staff.
1903	569	...	...	...	...	...	...	...
1904	791	...	...	...	...	...	...	...
1905	1,270	...	...	...	...	...	...	...
1906	2,061	1,651	142	209	...	31	28	...
1907	5,678	2,739	1,794	1,094	...	40	...	11
1908	8,311	4,310	1,813	1,911	...	99	150	28
1909	7,774	3,202	1,148	3,041	...	44	292	47
1910	6,945	2,951	406	3,200	29	75	247	37
1911	5,949	2,890	494	2,250	99	19	172	25
1912	6,715	3,542	753	2,193	91	20	97	19
1913	6,199	3,006	627	2,190	120	136	108	12
1914	7,193	2,481	1,314	2,985	96	158	137	22
1915	6,497	2,370	1,212	2,848	2	22	30	13
1916	3,730	2,161	535	952	...	72	7	3
1917	4,725	1,990	480	2,136	...	110	7	2
1918	6,283	1,941	745	3,514	...	76	5	2
1919	8,595	2,741	1,219	4,446	23	121	45	...
1920	9,162	3,075	1,205	4,483	90	181	121	7
1921	10,409	3,118	1,794	5,139	67	121	164	6
1922	9,702	3,108	2,475	3,803	41	109	134	31
1923	10,485	3,294	2,062	4,785	84	66	175	19

Tables A 1 and A 2 show the specimens received from the Upper, Middle, and Lower Ward Districts of the County, classified according to the nature of specimens :—

TABLE A1.

	TUBERCULOSIS.				TYPHOID.				DIPHTHERIA.				CEREBRO-SPINAL MENINGITIS.		MISCELL- ANEOUS.							
	Sputum.		Urine.		Blood.	Urine.		Feces.	Throat.		Nose.	Fluids.		Swabs.								
	+	o	+	o		+	o		+	o		+	o									
Upper Ward, -	69	90	—	1	—	—	7	—	2	—	1	16	134	—	2	—	1	—	—	32	18	
Middle , -	671	1,493	1	34	18	51	200	327	1	39	4	174	166	2,237	1	34	—	3	—	7	253	354
Lower , -	14	86	—	2	2	4	3	4	—	6	—	9	21	296	—	—	1	6	—	15	12	
TOTAL,	754	1,669	1	37	20	55	203	338	1	47	4	184	203	2,667	1	36	1	10	—	7	300	384

TABLE A2.

	VENEREAL DISEASE.						SPECIMENS FROM ANIMALS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	Syphilis.			Gonorrhœa.			Ophth. Neon.		Tuberculosis.			Anthrax.	Scabies.	Miscellaneous.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	Smear.	Blood.		Smear.	o	+	Smear.	+	o	+	Milk.				o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	+	o	

The specimens received from the various Burghs in the County and other Authorities are here classified according to the nature of the specimens received :—

	+	o
Typhoid, - - - - -	24	91
Diphtheria, - - - - -	87	492
Tubercle—Phthisis, - - - - -	144	375
„ other than Phthisis, - - -	3	22
Miscellaneous, - - - - -	93	77
Syphilis—Smear, - - - - -	—	—
„ Blood, - - - - -	184	353
Gonorrhœa—Smear, - - - - -	8	57
Ophthalmia neonatorum—Smear, - - -	—	—

The Burgh specimens were received from the following :—
Hamilton, 588; Motherwell and Wishaw, 326; Airdrie, 252; Coatbridge, 350; Rutherglen, 144; Kirkintilloch, 40; Lanark, 74; Biggar, 4; and other Authorities, 232.

Diphtheria.—3,486 specimens were examined from the following sources :—

	+	o
County Practitioners, - - - - -	96	577
Burgh „ - - - - -	87	492
Hospital Physicians (Throat), - - -	95	1,175
„ (Nose), - - - - -	—	15
Public Health Staff (Throat), - - -	13	919
„ (Nose), - - - - -	—	17
	<hr/> 291	<hr/> 3,195
	<hr/>	<hr/>

Of the 1,252 primary swabs examined in direct smear preparation, 90 gave positive results.

Upper Ward.	Middle Ward.	Lower Ward.	Burghs.
7	47	1	35

Vincent's Angina.—Three specimens were examined, with positive result in one of these.

Typhoid Fever.—831 specimens were examined, and the sources from which they were received may be enumerated thus:—

Agglutination Test.

		+	o
County Practitioners,	- - - -	29	89
Burgh „	- - - -	24	78
Hospital Physicians, -	- - - -	101	62
Public Health Staff, -	- - - -	14	132
		<hr/>	<hr/>
		168	361
		<hr/>	<hr/>

Blood Cultures.

Hospital Physicians, -	- - - -	19	34
		<hr/>	<hr/>

Fæces.

County Practitioners,	- - - -	—	7
Burgh „	- - - -	—	12
Hospital Physicians, -	- - - -	3	151
Public Health Staff, -	- - - -	1	26
		<hr/>	<hr/>
		4	196
		<hr/>	<hr/>

Urines.

County Practitioners,	- - - -	—	2
Burgh „	- - - -	—	1
Hospital Physicians, -	- - - -	1	15
Public Health Staff, -	- - - -	—	30
		<hr/>	<hr/>
		1	48
		<hr/>	<hr/>

44 specimens of blood were examined from 16 members of the Middle Ward Hospital staff inoculated against enteric fever.

Paratyphoid Fever.—17 specimens were examined, with the following results:—

		+	o
County Practitioner,	- - - -	1	—
Hospital Physician, -	- - - -	15	—
Public Health Staff,	- - - -	1	—

Tuberculosis.—2,942 specimens of sputa were examined from suspected cases of pulmonary tuberculosis, with the following results :—

		+	o
County Practitioners,	- - - -	99	467
Burgh	„ - - - -	144	375
Hospital Physicians,	- - - -	586	970
Public Health Staff, -	- - - -	69	232
		<u>898</u>	<u>2,044</u>

147 samples of milk were received from the County Veterinary Surgeon, of which 18·3 per cent. were found positive. Of these, 12·2 per cent. were reported direct from smear preparation, and 6·1 from animal inoculation.

Venereal Diseases.—*Syphilis*.—1,550 specimens of blood were submitted to the Wassermann test for syphilis, and gave the following results :—

		+	o
County Practitioners,	- - - -	75	137
Burgh	„ - - - -	22	67
Hospital Physicians, -	- - - -	339	899
Public Health Staff, -	- - - -	4	7
		<u>440</u>	<u>1,110</u>

34 specimens examined for spirochaetes, with the following results :—

		+	o
County Practitioners,	- - - -	—	5
Burgh	„ - - - -	—	—
Hospital Physician, -	- - - -	1	28
		<u>1</u>	<u>33</u>

Gonorrhœa.—112 specimens were examined, with the following results :—

		+	o
County Practitioners,	- - - -	7	23
Burgh	„ - - - -	8	30
Hospital Physicians, -	- - - -	—	40
Public Health Staff, -	- - - -	—	4
		<u>15</u>	<u>97</u>

Seven vaccines were prepared, four for medical practitioners and three for hospital physicians.

It is impossible to state how many of these specimens are from primary cases, as the information supplied to the laboratory is very meagre, the cases being treated in a strictly confidential manner.

Ophthalmia Neonatorum.—151 specimens were examined for the presence of gonococci, and five of these gave positive results. Of the 146 specimens giving negative results, one showed Koch-Weeks bacillus, 11 Fraenkel's pneumococcus, 17 staphylococcus, 47 bacillus xerosis, and one Morax-Axenfield bacillus.

Miscellaneous Specimens include specimens of pus and urine for pathogenic bacteria, faeces for dysentery, blood films for pernicious anaemia and malaria, hairs for ringworm, and potable waters.

Diabetes.—In anticipation of treatment by insulin, where the patient's blood must be examined for blood sugar content, arrangements were made for carrying out the test, and the following specimens have been examined:—

					Blood,
County Practitioners,	-	-	-	-	3
Burgh Do.,	-	:	-	-	1
Hospital Physicians,	-	-	-	-	10

7 specimens of urine received from medical practitioners were also examined.

Urine for Albumen.—254 specimens gave 62 positive results. In connection with the rules issued by the Central Midwives Board, it is provided that specimens of urine should be examined for albumen before confinement. As many of the midwives are not competent to do this testing of urine satisfactorily, arrangements were made to have this work done at the laboratory.

Vaccines.—134 were prepared, 97 for medical practitioners, 34 for hospital physicians, and three for Public Health staff. These were for the treatment of cases of inflammation of the bladder, boils, abscesses, nasal catarrh, asthma, bronchitis, and rheumatoid arthritis. The beneficial results obtained with these autogenous (patient's own germ) vaccines have greatly increased the demand for them, and their preparation entails a large amount of time and care.

Bacterial Content of Milk.—11 samples of certified milk were examined. Such milk, according to the licence granted under the regulations issued by the Board of Health, should not contain more than 30,000 germs per cubic centimetre and coliform bacilli (organisms of the bowel) should be absent in one-tenth of a cubic centimetre.

38 samples of Grade A (tuberculin tested) milk and six samples of Grade A milk were examined.

Under these grades the milk should not contain more than 200,000 germs per cubic centimetre, and coliform bacilli should be absent in one-hundredth of a cubic centimetre.

Eight samples of milk which had been pasteurised were examined. Such a milk should not contain more than 50,000 germs per cubic centimetre.

Three samples of ordinary milk were examined.

Contagious Abortion in Cows.—Eight specimens of blood were examined by the sedimentation test, four of which gave positive results. One specimen of discharge was examined, with negative result.

Rat Virus.—582 bottles were supplied, free of charge, on application, to farmers, householders, shopkeepers, and also to public works, &c.

BACTERIOLOGICAL REPORT ON SPECIMENS RECEIVED IN CONNECTION WITH OUTBREAK OF FOOD POISONING AT CARFIN, OCTOBER, 1923.

On Tuesday, 23rd October, 1923, the following specimens were received from Dr. Dick, Assistant Medical Officer of Health:—

- (A) A piece of corned mutton of about $2\frac{1}{2}$ lbs. weight resting on a piece of wood, the whole being wrapped in butter paper.
- (B) An unbroken 6-lb. tin of similar mutton, labelled as being the product of an American Meat Company.
- (C) A few small fragments of corned mutton taken from a lunch tin belonging to one of the patients (J.M.).

Dr. Dick explained that he had taken possession of the first two named articles (A and B) in a shop at Carfin, and the last-named article (C) at the house of J.M., all in connection with a suspected outbreak of food poisoning at Carfin, involving eleven cases in three families.

He also explained that the tin of meat in question (A) was opened on Saturday, 20th October, and that customers supplied with it on that date had suffered no ill effects, but that members of the three families supplied from the same piece on Monday, 22nd October, who partook of the mutton, had all suffered from irritation of the gastro-intestinal tract.

BACTERIOLOGICAL EXAMINATION.

Specimen A.—The suspected portion of mutton found in the shop.

On being examined in the laboratory the meat was found to be of firm consistence, fresh, and free from odour, and to all appearance fit for human consumption.

Cultures.—Under sterile precautions a slab of about quarter of an inch thick was removed from the cut surface end, and an emulsion in sterile water was made from portions of the meat taken from the centre of the remaining part. From this emulsion aerobic and anaerobic cultures were put on and incubated, with the following results :—

Aerobic Cultures, incubated at 37° C.—The serum and agar plates gave profuse growths of *Staphylococcus aureus*, with few colonies of *Staphylococcus albus*. No growth was obtained on bile salt neutral red agar or bile salt broth.

Anaerobic Cultures, incubated at 37° C.—Litmus milk and glucose agar inoculated from the unheated emulsion gave growths of *Staphylococcus aureus*, while litmus milk and glucose agar inoculated with emulsion heated at 80° for 10 minutes gave no growths, and glucose agar tubes similarly inoculated gave no growths when incubated at 21° C.

Similar *aerobic* and *anaerobic* cultures made from portions of meat removed from the centre about 2 inches from the uncut end gave no growths.

Animal Tests.—Two mice, Nos. 183 and 184, were fed once with the emulsion and small pieces of the meat mixed with bread and sterile water. Both showed marked diarrhoea three days later.

No. 183 on the fourth day was in a semi-collapsed condition and suffering from severe diarrhoea. The hindquarters were soaked with faecal discharge and the root of the tail raw and bleeding. On the morning of the sixth day this mouse was found dead.

No 184 was in a collapsed condition and suffering from severe diarrhoea on the fourth day. The hindquarters were soaked with faecal matter, which was also thickly coated over the cotton wool bedding. This animal was found dead on the morning of the fifth day.

Post Mortem.—The appearances were similar in both. The tissues and organs pale, with marked congestion of superficial inguinal glands. The intestines were soft, watery looking, and distended with yellowish-brown liquid. The lower portion of the bowel was markedly congested.

Cultures from heart, blood, liver, and spleen gave no growths. The control mouse No. 187, fed on bread and sterile water, remained alive and well.

Specimen B.—The unbroken tin of corned mutton.

Aerobic and Anaerobic cultures, prepared in a similar way to that employed with Specimen A, gave no growths.

Specimen C.—The small fragments of mutton from the lunch tin of J.M., one of the sufferers.

Aerobic Cultures incubated at 37° C.—The agar plates showed numerous colonies of *Staphylococcus aureus*, while the serum plates were liquified. No growths were obtained on bile salt media.

Anaerobic Cultures incubated at 37° C.—Cultures put on from the unheated emulsion gave growths of *Staphylococcus*, while from the heated emulsion the "storm reaction" of *Bacillus enteritidis sporogenes* was obtained in the milk tubes, and the glucose agar tubes showed no growths, as did those incubated at 21° C.

Animal Tests.—Two mice, Nos. 185 and 186, received one meal of the emulsion and pieces of the meat mixed with bread and distilled water.

No. 185 showed evidence of diarrhoea on the third day. On the fourth day the animal appeared sickly, with the hindquarters covered with faecal matter, which was also evident on the cotton wool bedding. On the morning of the sixth day it was found dead.

Post Mortem.—Tissues and organs pale, superficial inguinal glands slightly congested. Bowels soft and watery, and filled with yellowish brown liquid. Lower part of bowel congested. Cultures from heart, blood, liver, and spleen gave no growths.

No. 186 showed evidence of diarrhœa on the third day, and on the fourth day it was in a similar condition to that of mouse 185. On the fifth day it was much brighter. It continued to improve daily, and finally recovered.

Control Mouse No. 187, fed on bread and sterile water, remained alive and healthy.

EXPERIMENTAL WORK.

Mouse No. 216, fed once on sterile corned mutton inoculated with the culture of *Staphylococcus aureus* obtained from Specimen A, the suspected corned mutton, and incubated for 48 hours at 37° C, was found dead next morning.

Post Mortem.—The hindquarters were soaked with fæcal matter containing mucus and blood. On opening the animal the tissues and organs were found to be very pale. The intestines were very soft and distended with yellowish brown material. Cultures from liver, spleen, and heart blood showed a few colonies of *B. Coli*.

Mouse No. 217, fed on remnants of meat left by mouse No. 216, on same day on which it died. Next day the animal showed severe diarrhœa, the cotton wool bedding adhering to the root and along tail being removed with difficulty. Mucus and blood were mixed with the fæcal matter. On the morning of the third day mouse was in a semi-comatose condition, and at 5 p.m. was apparently dying. On the morning of the fourth day the animal was found dead.

Post Mortem.—The hindquarters, tail, and belly were soaked with fæces. The internal tissues and organs were pale, except the spleen, which was deeply congested. Inguinal glands were pale. The intestines were soft and distended with amber-coloured fluid. Cultures from heart blood, liver, and spleen gave no growths.

To repeat experiment.

Mouse No. 22½ received a feed of sterile corned mutton inoculated with same culture of *Staphylococcus aureus* and incubated for 48 hours. After suffering from marked diarrhœa, it was found dead on the afternoon of the seventh day.

Post Mortem showed evidence of diarrhœa, the hairs on the hindquarters being matted together with fæcal matter. The intestines were very soft and distended with yellowish-brown liquid. Cultures from heart blood, liver, and spleen gave no growths.

Control Mouse No. 223, fed on sterile corned mutton incubated at 37° C. for 48 hours, remained alive and well.

Mouse No. 226 was fed on a broth culture of the *Staphylococcus aureus*, incubated for 48 hours at 37° C., and mixed with bread and sterile water. The animal remained alive and well.

Mouse No. 234 received a feed of sterile corned mutton inoculated with the *Staphylococcus aureus*, incubated for 48 hours and then exposed to 60° C. for three-quarters of an hour. The animal remained alive and healthy.

The roast mutton employed in above experiments was taken from specimen B.

EXAMINATION OF SPECIMENS FROM MEMBERS OF THE THREE FAMILIES CONCERNED.

Specimens of Blood for Agglutination.

Three specimens, taken on 24th October from three members of two of the families—

J.M. (P.).

M.C. (P.)

R.C.

These, tested by the sedimentation test against cultures of *B. Para A* and *Para B*, *B. Gaertner*, *B. Aertryck* (*Newport*), *B. Aertryck* (*Mutton*), in dilutions varying from 1-20th upwards, gave negative results.

Nineteen specimens, received from members of the three families on 7th November—

Mr. A.	Mr. C.	Mr. M.
Mrs. A.	Mrs. C.	Mrs. M.
B. A. }	K. C.	P. M.
Jas. A. }	M. C.	M. M. } P.
S. A. }	R. C.	J. M. }
Jeanie A. }	P. C. }	
J. O'B. }	M. C. }	

P = Patient.

All these, examined by the sedimentation test, with the above cultures in dilutions varying from 1-10th upwards, gave negative results.

Specimens of faeces from 10 of the affected members and 9 others were examined for members of the *Salmonella* group of organisms, with negative results.

CONCLUSIONS.

(1) None of the salmonella or ordinary food-poisoning group of bacteria was found in either of the two specimens of suspected meat, or in the discharges from the persons affected. This was not surprising, as the rapid onset of the illness after the food was consumed pointed to toxin poisoning rather than to bacterial infection.

The exclusion of the salmonella group of bacteria is also supported by the results of the sedimentation test, where the blood serum of the 10 available patients, taken 16 days after the onset of illness, failed to react to three of the principal members of the group, viz., *B. Para B. B. Gaertner*, and *B. Aertryck* in as low a dilution as 1 in 10.

(2) That the meat was toxic was evident by the fact that 4 mice fed with the 2 samples suffered from severe diarrhœa three days later, and, ultimately, three of them died.

(3) The only organism of importance found in the samples was *Staphylococcus aureus*, one of the principal members of the group of bacteria which cause inflammation and pus formation.

This organism was found in the centre of the block of meat, within a quarter of an inch of the part which was supplied to the affected parties, and was not found about 2 inches from the uncut end. *Staphylococcus albus* has been found in tinned meat, but I am not aware of the *aureus* having been met with in the centre of such food. It was also found in the fragments of meat from the lunch tin.

That it was toxic when cultivated on sterile roast mutton and taken by the mouth was shown by the fact that mice fed on such material suffered from diarrhœa and ultimately died, showing similar *post-mortem* appearances to the mice fed on the actual meat, while a mouse fed on a pure culture in broth showed no evidence of illness whatever. The toxin produced by the germ was readily destroyed by heat, as a mouse fed on a culture of it on roast mutton which had been heated at 60° C. for three-quarters of an hour remained alive and to all appearances healthy.

(4) The only inference to be drawn from the results of the investigation is that the *Staphylococcus aureus* was the causative agent in the outbreak.

J. HUME PATTERSON F.R.F.P.S (GLAS.), D.P.H.,
County Bacteriologist.

Chemical Laboratory.

WALTER BROWN, F.C.S.

The number of samples analysed or examined during the year amounted to 473.

The following table shows for each year since 1902 the number of samples analysed :—

SAMPLES EXAMINED IN THE CHEMICAL LABORATORY CLASSIFIED ACCORDING TO ADMINISTRATIVE AUTHORITY UNDER WHICH THEY WERE OBTAINED.

Year.	Rivers Pollution.			Public Health Department.			Food and Drugs.	Total.
	Sewage Works.	Trade Effluents.	Streams.	Water Supplies.		Special.		
				Public.	Private.			
1902	49	87	180	18	16	...	...	350
1903	77	101	78	35	35	...	4	330
1904	55	54	85	40	38	8	34	314
1905	130	53	105	16	35	1	55	395
1906	69	7	20	1	32	10	37	176
1907	275	47	38	116	44	240	1	761
1908	61	52	77	101	41	418	6	756
1909	420	41	65	117	39	387	30	1,099
1910	77	49	83	187	55	375	115	941
1911	84	76	60	84	47	365	77	793
1912	30	30	69	100	35	379	1,635	2,278
1913	26	47	93	63	29	430	1,424	2,112
1914	69	47	103	67	35	165	489	975
1915	31	51	63	19	19	55	74	312
1916-18	...	...	...	...	...	...	...	...
1919	27	42	61	7	15	13	77	242
1920	26	123	142	7	19	28	217	562
1921	20	54	62	8	12	97	201	454
1922	50	38	66	—	32	60	318	564
1923	52	48	84	1	16	117	155	473

Samples of Sewage.

SEWAGE WORKS. — Total, 52 samples. Systematic sampling was carried out at the following purification works, where 6-hourly samples of crude sewage and tank effluent were obtained :—Westthorn, Netherton, and Cambuslang (Eastfield Works). Also at the following works, where in addition to crude sewage and tank effluent a sample of filter effluent was obtained :—Crindledyke (on two occasions), East Kilbride, Strathaven, and the Burgh of Motherwell. From the Burgh of Wishaw two samples of effluent after irrigation were analysed, and from the Corporation of Glasgow one sample Dahnarnock effluent.

The following percentage degree of purification, calculated on the difference between the amount of oxygen absorbed in 5 days, of the crude sewage and tank or filter effluent is shown in the following table :—

				Percentage Purification.		
				Tank over Crude Sewage.	Filter over Crude Sewage.	Filter over Tank.
Crindledyke (1),	-	.	-	70	91	75
Do. (2),	-	-	-	39	82	72
East Kilbride,	-	-	-	50	70	57
Strathaven,	-	-	-	39	73	56
Burgh of Motherwell,	-	-	-	80	84	30
Westthorn,	-	-	-	40	—	—
Netherton,	-	-	-	37	—	—
Cambuslang, Eastfield,	-	-	-	60	—	—

The following table shows the amounts of suspended solids, albuminoid ammonia as nitrogen, oxygen absorbed in 4 hours, and dissolved oxygen absorbed in 5 days of the crude sewage as sampled at the above works :—

Results expressed as Parts per 100,000.						
			Suspended Solids.	Albuminoid Ammonia.	Oxygen absorbed in 4 hours.	Dissolved Oxygen absorbed in 5 days.
Crindledyke (1),	-	-	30·2	·24	5·4	21·0
Do. (2),	-	-	34·0	·54	7·0	35·0
East Kilbride,	-	-	16·0	·32	4·5	18·0
Strathaven,	-	-	14·5	·25	3·5	13·0
Burgh of Motherwell,	-	-	31·5	1·00	15·0	22·0
Westthorn,	-	-	24·6	·20	4·2	26·0
Netherton,	-	-	20·0	·43	4·1	26·0
Cambuslang, Eastfield,	-	-	35·2	·62	5·6	22·0

The strongest crude sewage was from Crindledyke, where the sample obtained at the second sampling absorbed 35.0 parts per 100,000 of oxygen in 5 days. The weakest sample was obtained at Strathaven, where only 13.0 parts per 100,000 were absorbed.

The filter effluent of greatest purity, or which most closely approached the standard of 2.0 parts of oxygen absorbed in 5 days recommended by the Royal Commission, was obtained at Crindledyke Purification Works. This effluent absorbed 1.75 parts per 100,000. The strongest filter effluent was taken from East Kilbride, the figure being 4.7 per 100,000.

Two snap samples of effluent from the irrigation fields of the Burgh of Wishaw absorbed 2.08 and 3.24 parts of oxygen in 5 days respectively; while a snap sample from the Dalmarnock outfall, Glasgow, absorbed 16.25 parts per 100,000. The results obtained by the Burgh of Motherwell at their Coursington Works are satisfactory; considerable quantities of spent ammoniacal liquor are received into the sewers, but, so far as is known, without interfering with the purification effected.

In connection with the purification of sewage by what is known as the activated sludge process, several visits were made to Shieldhall, where the City of Glasgow have an experimental plant in operation. Samples of crude sewage and effluent after treatment were obtained for analysis, the results indicating that a remarkably pure effluent was being obtained by this process; the crude sewage being treated at that particular visit was, however, an extremely weak one, being only about half the strength of the average tank effluent as found in Lanarkshire.

Samples of Trade Effluent.

Coal Washers.—32 samples from the following collieries:—

Colliery.	No. of Samples.	Colliery.	No. of Samples.
Castlehill, - -	16	Milnwood, - -	2
Stane, - - -	3	Holytown, - -	1
Gateside, - - -	3	Darnagavil, - -	1
Jerviston, - - -	3	Stepends, - - -	1
Knowton, - - -	2		

These samples were all of a polluting nature, containing suspended solids varying from 35.0 up to 8,376 parts per 100,000.

Pit Waters.—7 samples from the following collieries :—Woolfords, Pool Mine (drainage), Wilsontown (two samples), Gateside, Ferniegair, and Stane.

The pit water at Woolfords is not yet normal, in so far as it still contains a large amount of acid iron salts, and free sulphuric acid. Previous to the coal strike this water contained much iron, but was alkaline in reaction.

The mine drainage at Pool is now very similar in chemical composition to what it formerly was; its acidity has disappeared, and the water is now alkaline.

The Wilsontown samples also contain iron, but this water has never been known to contain free acid. The present samples were specially examined for phenoloids, 0·6 parts per 100,000 being found.

The pit water at Ferniegair was also an acid water, containing iron.

Gateside and Stane pit waters contained 6·7 and 16·8 parts per 100,000 of suspended solids respectively.

Ammonia Works.—8 samples from the following works :—Wilsontown, two samples; Home Seat Level, Wilsontown, one sample; Tarbrax, one sample; Clyde Iron Works, Mossend Iron Works, Motherwell and Uddingston Gas Works, one sample each.

The spent liquor at Wilsontown contained phenols amounting to 64 and 42 parts per 100,000 respectively, but the Home Seat Level drainage is still free, or contains at the most a mere trace of phenoloid substance. Tarbrax spent liquor contained 66 parts per 100,000. The effluents from the iron works vary greatly, thus at Clyde Iron Works the discharge contained only 4·36, while at Mossend the phenols amounted to 289·3 parts per 100,000. Gas works effluent also vary in composition. At Motherwell the liquor contains 618·2, while at Uddingston only 53·04 were found.

Lead Mines.—One sample effluent from settling ponds at Leadhills Mines was found to contain suspended solids amounting to 450·8 parts per 100,000, the lead sulphide present amounting to 2·7 per cent., calculated as metallic lead.

Sample of Streams.

Total samples, 84, of which 50 were examined in connection with discharge of sewage, and 34 in connection with trade pollutions.

Samples from the following streams were taken, together with average samples from sewage purification works, and show the actual effect of the particular discharge. The following table shows the number of samples from each stream and the corresponding purification work, also the effect of the effluent as measured by the increase of oxygen absorbed in 5 days :—

Stream.	Samples.	Purification Work.	Increase of Oxygen absorbed in 5 days.
River Clyde,	2	Cambuslang, Eastfield,	... .24
Do.	2	West Thorn, ...	... .08
South Calder,	2	Crindledyke (1), ...	... .10
Do.	2	Do. (2), ...	... .34
Do.	2	Burgh of Motherwell,	... .40
Powmillon,	2	Strathaven, ...	... .16
Kittoch,	2	East Kilbride, ...	... 1.47

The following samples were analysed in connection with complaint of sewage pollution :—Water in Hamilton Low Parks, two samples; ditch at Ferniegair, two samples; and ditch at Loaningdale, Biggar, one sample.

RIVER CLYDE.—SPECIAL SAMPLING.

The River Clyde in its passage through the County may be said to ultimately receive practically the whole sewage of the County in a more or less purified condition. Many statements have been made from time to time regarding the condition of the river, particularly in the lower reaches, and recently this question has been raised on several occasions in the public press. It was, therefore, decided in August that a more complete and systematic examination of the conditions of the river should be made, and samples taken at least once a week over an extended period. Up to the present 31 such samples have been taken, and indicate at least very variable conditions. These samples have all been taken during the winter months, and represent many flood conditions of the river. It is intended to carry out this work over a more extended area, and the results, when available, will form the subject of a special report.

Samples of Streams affected by trade effluents:—

	Sample.		Sample.
River Mouse,	9	Glengonnar Water, ...	1
Dippool Water,	4	Greenfield Burn, ...	1
Gateside Burn,	4	Nameless stream, Tarbrax,	1
Garrion Burn,	3	Spittal Burn, ...	1
Bothlin Burn,	3	Ravel Burn, ...	1
Mollins Burn,	3	River Almond, ...	1
Shirrel Burn,	2		

The samples from Gateside Burn, Garrion Burn, Spittal Burn, River Almond, and Ravel Burn were affected by coal-dross washing effluents from various collieries, and were specially examined for suspended solids.

The River Mouse and the Dippool are affected by discharge of acid iron pit water from Wilsontown and Woolfords respectively, and were specially examined for these constituents. Certain samples of the Mouse were, however, also examined for coal washings and also phenoloid substances.

The Glengonnar Water receives the drainage from the mining operations at Leadhills, and contained much suspended material, with a small quantity of lead. The Bothlin Burn and Mollins Burn were examined for coal washings and phenoloid substances; oil being also estimated in the Mollins Burn sample.

Water Supplies.

Seventeen samples of water were analysed, 16 being from private sources, and one a water proposed as an additional supply for Forth and Wilsontown.

UPPER WARD DISTRICT.

Gourock Rope Co., Lanark.—A hard water, free from organic pollution.

Stonehill Cottage, Carmichael (two samples).—A water of doubtful purity.

Stableston Public School, Douglas.—Physical character unsatisfactory, but water free from organic pollution.

Henshilwood Farm, Braehead (two samples).—No evidence of organic pollution.

Climpy Well Water.—Physical character unsatisfactory, but water free from organic pollution.

Lea Muir, Carlisle.—A hard water, but otherwise suitable for domestic use.

Gateside, Kilncadzow.—A pure water, but not recommended, on account of excessive hardness.

Woodmailing, Symington.—No evidence of organic pollution.

Wiston Public School (two samples).—Physical character unsatisfactory, but water free from organic pollution.

Yonderton, Lesmahagow.—A water of great purity.

Water on the Lands of Mossplatt Farm, proposed as an additional supply for Forth and Wilsontown. This was a peaty water, containing more albuminoid ammonia and absorbing more oxygen than usually found in peaty waters of similar colour. There was, however, nothing in the analysis to suggest that the ammonia was of animal origin.

MIDDLE WARD DISTRICT.

Limekilns, East Kilbride.—Middle Ward Supply. Physical character unsatisfactory, due to local pipe conditions.

Winterhill, Newmains.—A water of doubtful purity, and containing an excess of iron.

LOWER WARD DISTRICT.

Clyde Bridge Steel Works.—The water supply to certain sections of this work was drawn from the River Clyde to storage tanks. The water was quite unfit for drinking purposes.

Special Samples.

Total, 117 samples. Wall plaster, 68 samples; in each of these the insoluble matter, water, and calcium existing as lime, calcium carbonate, and calcium sulphate was estimated. Lime, three samples for percentage of lime and insoluble matter. Graded milk, 32 samples

Paint material for white lead, two samples. Fæces, urine, stomach, and bowel for lead, one sample each. Coal, one sample, particularly for ash. One brick for amount of water absorption. Thriving meal, one sample for microscopic examination and nature of oil. Malt and cod-liver oil, one sample for amount of cod oil. Beer, one sample for alcoholic content. Bone flour, one sample for phosphates. Disinfectant, one sample for valuation. Material for poison, one sample. Water deposit, one sample for microscopical examination.

Food and Drugs.

155 samples, consisting of the following:—

	Samples. Examined.	Not Genuine.		Samples. Examined.	Not Genuine.
Sweet Milk, ...	105	8	Cream of Tartar,	4	—
Skimmed Milk,	4	—	Seidlitz Powder,	1	—
Buttermilk, ...	3	—	Ham, ...	1	—
Dried Milk, ...	3	—	Port Cordial,	1	—
Condensed Milk,	8	—	Margarine, ...	2	—
Cream, ...	1	—	Whisky, ...	14	—
Butter, ...	8	3			

Of the eight deficient sweet milk samples, four were deficient in solids not fat, one in fat, and three in solids not fat and in fat; the lowest figures being 2·4 per cent. of fat and 5·7 per cent. solids not fat. These figures occur in the same sample. 49 samples of milk from individual cows are included in this total. These were all genuine. Butter samples; three were reported as being margarine. The sample of ham was reported free from boric acid, and the port cordial free from preservatives.

Rivers Pollution Prevention.

SENIOR INSPECTOR, - FRANK M'ARTHUR.

The systematic inspection of streams and sources of pollution is carried out by the staff of three inspectors, and reports dealing with the work done are issued quarterly to the members of the Public Health Committee.

Means of preventing pollution have been adopted in practically all sources of industrial pollution. These measures are more or less satisfactory, but there is difficulty in many cases in maintaining their efficiency. At coal-washing plants, for example, settling tanks or ponds are allowed to get silted up, or other preventive measures become defective, or the persons in charge neglect their duty and allow polluting effluents to escape to the outfall streams. In these respects there is room for complaint, and during the current year recurring pollutions due to these causes are being specially dealt with. With regard to sewage outfalls, a considerable number, notably in the Middle Ward District, still require means for preventing pollution. These are indicated later. As in the case of industrial pollutions, there is difficulty in maintaining existing purification works in a state of efficiency. This difficulty, however, is almost entirely due to underground workings affecting the sites of works, as a result of which both tanks and filters get out of order. In one case the site has had to be abandoned and new works constructed, while in others, filters have not been in use for some years. Indeed, the provision of sewage purification works for certain special districts and burgh areas is seriously hindered by unfavourable site conditions due to mineral workings. Considering the limited powers possessed under the Rivers Pollution Prevention Acts for dealing with offences, and the cumbrous method of instituting legal proceedings, a great deal of excellent work has been done in improving the condition and maintaining the purity of streams.

The work done during the year may be summarised in the following table :—

TABLE A.—SHOWING SOURCES OF POLLUTION, INSPECTIONS, AND POLLUTIONS DETECTED.

SOURCES OF POLLUTION.				INSPECTIONS.		POLLUTIONS DETECTED.		
Nature.				Number.	Number.	Samples.*	Number.	
Coal-Dross Washers,	-	-	-	71	657	40	50	
Lead Washer,	-	-	-	1	1	1	1	
Ammonia Works,	-	-	-	23	34	5	2	
Paper Mills,	-	-	-	4	4	—	1	
Print, Dye Works, &c.,	-	-	-	5	4	—	—	
Distilleries,	-	-	-	2	—	—	—	
Chemical Work,	-	-	-	1	—	—	—	
Total for Industries,				-	107	700	46	54
Sewage Purification Works and Outfalls,				-	-	366	62	—
Streams, &c.,				-	-	1,557	120	—
GRAND TOTAL,				-	-	2,623	228	54

* The samples analysed are dealt with in the report of the work done in the Chemical Laboratory.

Trade Pollutions.

From the above table it will be observed that the total mining and manufacturing pollutions detected amounted to 54, compared with 55 in the preceding year. 50 of these were from coal-dross washers.

COAL-DROSS WASHERS.—71 were under observation, 657 inspections were made, 40 samples taken, and 50 pollutions detected.

New sources of pollution placed on the register during the year were Auchloch an No. 9 (Coalburn), Stepends (Plains), and Thankerton (Holytown) Collieries. At Kenmuirhill Colliery, Mount Vernon, and Home Farm Colliery, near Larkhall, new washers were in course of construction at the close of the year, the latter to replace a previously existing washer. At Bog Colliery, also near Larkhall, a new washer to replace an old type of washer was brought into operation during the year. The only colliery specially reported to the County Clerk during the year was Milnwood, Bellshill, which is fully referred to in the report for the preceding year.

As in previous years, new preventive measures or improvements in existing preventive measures were carried out at a considerable number of collieries, mostly after negotiation between the inspectors and the colliery officials. In addition, with a view to keeping the preventive measures in satisfactory order, minor improvements were effected at most sources of pollution as attention was drawn to their necessity by the inspectors. The more important improvements obtained during the year may be referred to.

Baton Colliery, Shotts.—Arrangements were discussed and agreed on for diverting the overflow from the silt-recovery tank to the ground settling area on the Almond watershed, and for effecting other improvements on the preventive measures with a view to preventing pollution of the Currie Burn, a tributary of the South Calder Water. These improvements were carried out in the current year.

Cadzow Colliery, Hamilton.—Extensive improvements were effected at this colliery. These comprised the provision of two additional settling ponds, the cleaning of two existing settling ponds at a cost of £166, the provision of electric motors and haulage for removing silt from the ponds, and the making of a new outfall to the Meikle Burn. The total cost of the improvements was £838 18s. The Hamilton Burgh Authorities complained of pollution of the Butter Burn. The improvements above referred to, however, removed any possible cause for such complaint.

Castlehill Colliery, Carlisle.—With a view to preventing repeated complaints of pollution of the Garrion Burn, which were made even after all possible steps had been taken to make the filtrate from the settling pond as good as possible, the effluent from this pond was diverted to an area of inundated ground, the drainage from which does not give rise to complaint. In addition, so as to remove as much of the suspended solids as possible from the effluent before it reaches the inundated area, an additional settling pond was constructed. These measures proved entirely satisfactory.

Dechmont Colliery, Cambuslang.—A drain was laid to convey the washings from the bottom outlet of the silt-recovery tank to the settling ponds constructed in the preceding year. This effluent formerly discharged direct to a ditch, and the Light Burn, and was a source of serious intermittent pollution. The improvement cost about £100.

Dewshill Colliery, Salsburgh.—A silt-recovery tank was constructed, the various outlets from which were connected up by a single pipe to a settling pond, the old series of settling ponds being discarded.

Hassockrigg Colliery, Shotts.—A silt-recovery tank was constructed, and two new settling ponds provided.

Home Farm Colliery, near Larkhall.—The Home Farm Burn, a small stream which flows past this colliery, was diverted to the deep inundation near the River Clyde, the overflow from which has always been found to be free from suspended solids, and to which the bulk of the coal-washings produced had for many years been conveyed in a pipe. As pollution of the stream had occurred through this pipe bursting, the suggestion was made that the whole stream might be diverted to the inundation. This suggestion was given effect to, with satisfactory results. Shortly afterwards coal-washing was suspended to permit of the dismantling of the washer and the construction of a new washer, which had not been completed at the close of the year.

Knowton Colliery, Shotts.—An extensive settling area was constructed.

Stane Colliery, Shotts.—A new bing pond was constructed.

Westwood Colliery, Cleland.—A new bing was formed.

LEAD WASHER.—Only one inspection of the lead washer at Lead-hills was made, when the settling ponds were found to be silted up and pollution of the Glengonnar Water as it flows through the village occurring. The Company's attention was drawn to the conditions.

AMMONIA WORKS.—There are 23 sources of pollution by spent ammoniacal liquor on the register, but, as mentioned in previous reports, about half of these drain to public sewers, and do not require inspection. The number of inspections made during the year was 34; 5 samples were taken, and 2 pollutions detected. As in the preceding year, the blast furnaces in the County were not in full operation, and no change falls to be recorded in the methods taken to prevent pollution at sources of pollution which are in operation. At Clyde Iron Works, Tollcross, pollution due to the special plant for evaporating spent ammoniacal liquor not being in operation, was detected. It was ascertained that the boilers forming this plant were requiring repair or replacement, and this work was taken in hand,

but early in the current year the whole works were closed down. It is understood, however, that the furnaces are to be reconstructed on modern lines. While no pollution is recorded as occurring from Cambuslang or Uddingston Gas Works, these works are both sources of pollution by spent ammoniacal liquor, no means being now taken to satisfactorily dispose of the effluents. In the month of September complaint was made of pollution of the Myers Burn by the effluent from the latter works, and towards the end of the year the question of taking the spent liquor into the public sewer was gone into, and was still under consideration by the Gas Works Sub-Committee at the close of the year. In the case of Cambuslang Gas Works the amount of liquor produced is of much less volume, and the effect of pollution is less apparent, as the discharge, which is intermittent, is direct into the River Clyde. In the current year the continued occurrence of pollution was reported to the Public Health Committee with a view to the District Committee, who own both gas works, being called on to take measures to remove cause for complaint.

In the month of November, serious spent ammoniacal liquor pollution of the River Mouse occurred from the works at Wilsontown, under exceptional circumstances, which were as follows:—The method of disposal adopted is to discharge the spent liquor into disused mine workings—a method which has always been found to be entirely satisfactory. On the occasion referred to, however, it was found that the mouth of the shaft communicating with these disused workings had collapsed, and that the spent liquor had been diverted to the coal-dross washings settling ponds, from which it found its way to a head stream of the River Mouse. As the pollution thus caused was of a serious nature, and would probably, had it continued for a lengthened period, have had disastrous results on the fish life of the stream, the matter was at once taken up with the Manager of the works, and with all possible speed the pipe which conveys the spent liquor to the damaged shaft was extended to another disused shaft, also communicating with the old workings, and the disposal of the effluent as formerly resumed. Pollution only lasted for about two days, close touch being kept with the works officials until the necessary remedial measures were completed. No complaint with regard to the pollution from an outside source was received.

MANUFACTORIES. — There are 12 sources of manufacturing pollution on the register, several of which drain to public sewers. 8 inspections were made, 1 sample taken and 1 pollution detected.

This pollution was observed at Moffat Paper Mills. With regard to Caldercruix Paper Mills, it has to be reported that they are still a source of continuous pollution, there having been no change in the circumstances referred to in preceding reports, and in the current year the matter was again brought before the notice of the Public Health Committee. It might be added that recently, when the question of a site for sewage purification works for the Glengowan and Caldercruix area was under consideration, the owners of the mills raised the question of a joint-scheme of purification of the sewage and paper mills effluent, special reference being made to the activated-sludge method of purification. This suggestion was gone into by the Middle Ward District Engineer, but, in view of the very large volume of effluent produced at the mills, was considered to be impracticable.

Solid Matter Pollution.

No complaints were received or serious offences observed with regard to pollution of streams by solid matter. The attention of the owners of Hallside Steel Works pumping station, near Uddingston, was, however, drawn to the practice of depositing boiler ashes on the bank of the River Clyde in such a manner as to create a statutory offence. Satisfactory steps were taken, after a second complaint had been made in the current year, to deposit the ashes without creating an offence.

Sewage Pollution and Sewage Disposal.

In connection with sewage pollutions, 366 inspections were made and 62 samples taken.

SPECIAL DRAINAGE DISTRICTS. — The following notes refer to the progress made in connection with the provision or improvement of means of sewage disposal in special drainage districts, and other matters.

UPPER WARD.—The number of special districts is now 13, new districts formed during the year being Ponfeigh and Carstairs Village. Drainage and sewage disposal works have been approved of for both of these districts, and will be carried out in the current year.

Carlisle.—Complaints were again made with regard to pollution of Jock's Burn, due mainly to the unsatisfactory arrangements for

dealing with Jock's Burn sewer outfall. Many inspections and reports were made during the year, and the local sub-committee pressed to improve matters, resulting in the following action being taken:— (1) the field of 23 acres acquired in 1917, and situated to the west of the original irrigation areas, was brought into use in the month of May; and (2) it was agreed to construct a tank through which the sewage discharged by the Station Road and Jock's Burn outfalls would be passed before irrigation. Some difficulty was experienced in obtaining the sanction of the Standing Joint-Committee to the capital expenditure involved in the proposed tank and relative works, but, after full explanation of their urgent necessity, sanction was obtained. The work was commenced on 21st January of the current year.

Coalburn.—The provision of sewage purification works on the Coal Burn, for the Bellfield and Braehead area of this district, is referred to in the report for the preceding year. Very few connections have so far, however, been made to the drainage system.

Lesmahagow. — The provision of sewage purification works for Lesmahagow, which were brought into operation on 2nd February, was also referred to in the report for the preceding year. The operation of these works has been satisfactory.

MIDDLE WARD.—The number of special drainage districts remains at 24, no new districts having been formed during the year.

Aitkenhead and Tannochside. — Inspections were made in connection with proposals for a sewage outfall for the northern portion of Tannochside Old Rows, for which water-closets were to be provided. The southern portion of these rows drains to the main sewer in the Old Edinburgh Road, and thence to the Uddingston outfall sewer, but, as it was considered impracticable on account of mineral subsidence to drain the whole of the houses southwards, it was arranged to construct an outfall to the north and provide a septic tank, the effluent from which would discharge into an existing drain, thence to a ditch which joins the Ravel Burn. The work was completed in the current year.

Stonehouse.—The field acquired and prepared for irrigating the sewage conveyed by the main outfall sewer from the district, referred to in the report for the preceding year, was not brought into use until the current year.

In the Middle Ward District a large number of special drainage districts are still without means of sewage purification for the whole or part of the district, notably the populous localities of Baillieston, Blantyre, Mount Vernon, Bellshill (including Holytown and New Stevenston), Larkhall, and Uddingston. The pollution of the various outfall streams caused by the discharge of untreated sewage from these areas is very considerable.

During the year average sampling of crude sewage, effluents, and outfall streams was carried out at the following sewage purification works, viz. :—Crindledyke (Newmains), Eastfield (Cambuslang), East Kilbride, Dalzell and Netherton, and Strathaven. The results of analysis will be found in the Chemical Laboratory portion of the report.

LOWER WARD. — The number of special drainage districts in the Lower Ward remains at 8.

Barony.—The sewage purification works at Westthorn, Tollcross, having been considerably affected in recent years by mineral workings, difficulty was experienced when the tanks were being cleaned in keeping at least one tank in operation when the sludge was being removed. The circumstances under which this was supposed to be necessary were fully inquired into by the Rivers Inspector along with the Committee's Engineer, as a result of which certain minor repairs were effected, which rendered it unnecessary to bye-pass any crude sewage to the River Clyde during tank-cleaning operations. Discharges of crude sewage to the River Clyde from a storm overflow on the Tollcross Burn sewer having also been observed on several occasions in dry weather, the overflow was raised several inches, so as to prevent this.

Early in the year a communication was received by the Lower Ward Authorities from the Town Clerk of Glasgow, expressing "great dissatisfaction with the condition of the effluent" from Westthorn Sewage Purification Works, and suggesting a conference with the various Local Authorities interested in the works, which are within the City boundary, and deal with drainage from the Shettleston and Tollcross areas within the City, as well as from Lower Ward and Middle Ward areas, the Lower Ward District Committee being responsible for their management. With a view to ascertaining the

actual condition of the effluent and of the River Clyde above and below the outfall, average samples were taken for analysis on 13th March, and for comparison samples were also taken on the same day of the effluent from Dalmarnock Sewage Purification Works, and of the River Clyde above and below these works. The results of analysis of these samples showed that the effluent from Westthorn had little or no polluting effect on the River Clyde. With regard to the Dalmarnock effluent, the analysis showed it to be of a polluting nature, giving rise to a definite local pollution at least ten times greater than that produced by the effluent from Westthorn. The results of analysis were transmitted to the Lower Ward Authorities, and thereafter further correspondence between the City and the Lower Ward Authorities took place, in which the City Authorities stated that, notwithstanding the reports submitted with regard to the nature of the effluents from Westthorn and Dalmarnock Sewage Purification Works, and their effect on the River Clyde, they still desired a conference of the Authorities interested in Westthorn Works, which was accordingly held in the City Chambers on 27th June, when representatives of the Corporation and of the Middle and Lower Wards and officials were present. Prior to the conference, meetings of the Barony Drainage Sub-Committee, and of this Sub-Committee and Middle Ward representatives, were held. Councillor Thomson, Glasgow Corporation, presided at the conference, and in his opening remarks he said:—

My Committee fully realise that progress in the purification of the River Clyde is only possible by the mutual co-operation of all Local Authorities controlling sewage and other polluting discharges, and this conference has been called so that we might have the advantage of an interchange of views, particularly in regard to the unsatisfactory character of the discharge from the Westthorn Sewage Works.

I may describe the present-day position of Glasgow's sewage problem as being one of gradual emergence from the difficulties, economic and otherwise, which confronted the Committee during and after the war.

At the Dalmarnock Works full chemical treatment of the sewage with sulphate of alumina and lime has during the present month been resumed, whilst in order to further improve the quality of the works discharge a considerable part of the chemical effluent is completely purified by biological filtration.

This scheme of purification has been developed in order to reduce the unavoidable pollution, resulting from the daily discharge of 20 million gallons of effluent, to an extent that will enable the river water to deal effectually with it.

The practical attainment of this object depends, I may remind you, not only on the degree of purification the Dalmarnock sewage receives prior to its discharge, but also on the quality of the river water above the works.

Unfortunately, at this point its quality is far from satisfactory, especially during dry weather, and there can be no doubt that the discharge of sewage from the Westthorn Outfall contributes to this condition.

In view of this, and also from the fact that 83 per cent. of the cost of the Westthorn Works is borne by the Glasgow Corporation, my Committee thought it advisable to arrange a conference with you.

The Sewage Committee, now that the restrictions due to the war have been removed, are once more free to pursue a forward policy in the purification of the Clyde.

The problem of sewage purification is being constantly investigated, and my Committee is prepared to adopt all reasonable measures to improve the efficiency of the works, and with confidence appeal to you to afford them your active support.

After an interchange of views, it was agreed that the officials of the several Local Authorities interested should report jointly as to the best practicable means of improving the effluent from the works.

In pursuance of this understanding, the Lower Ward District Committee's Engineers prepared plans showing how the works could be converted to activated-sludge works of the air-diffusion type, which were submitted, along with relative notanda, to a meeting of officials of the Authorities held on 30th November. These plans and proposals were fully discussed and certain modifications agreed on. In the current year a further meeting was held, when the terms of the final report were agreed on. This report is dated 21st May, and has been approved by the three Authorities, and instructions given for adapting the works to activated-sludge methods of purification, and for reconstructing the outfall sewer which had also been affected by underground workings, all at an estimated cost of a little over £17,340. The work is to be carried out by the Lower Ward District Committee's Engineers (Messrs. Warren & Stewart, C.E.), under the supervision of the Barony Drainage Sub-Committee, in terms of the Agreement made when the area in which the works are situated was annexed to the City in 1912.

Bishopbriggs.—During the year the district was extended so as to include Jellyhill, and, in view of the unsatisfactory condition of the sewage purification works on the Bishopbriggs Burn, which has been referred to in previous reports, the District Committee approved of a scheme to construct activated-sludge works on a site lower down

the stream. This involved the diversion and extension of the outfall sewer. The method of purification to be adopted is the Ames Crosta method of mechanical-agitation, as seen in operation at Bury, Lancashire, and referred to in the report of inspections of activated-sludge plants made by the staff during the autumn. The construction of the new outfall sewer was commenced early in the current year, and the construction of the purification works will also be gone on with this year. The estimated cost of the scheme is £14,470.

Carmunnock.—The connecting up with the public sewer of the properties which were found draining direct to the Paduire Burn, and the improvements in the equipment and management of the sewage purification works, referred to in the report for the preceding year, were duly carried out, with satisfactory results.

Populous Places outwith Special Drainage Districts.

The more important matters dealt with, involving special inspections and inquiries with regard to questions of drainage and sewage disposal, are referred to below.

Ashgillhead (Dalserf Parish) New Houses Outfall.—Complaint was made by a riparian proprietor of pollution of the Stewart Gill, a small stream into which the drainage from this housing scheme discharges, meantime without purification. Inspection showed that there was cause for complaining of the condition of the stream below the outfall, and that the stream above the outfall might also be involved, at least in dry weather, as the drainage of the village, apart from the housing scheme, also discharges to the stream and causes pollution. Arrangements to provide purification works for the housing scheme outfall are proposed, but, with a view to meeting the objections raised, the burn was fenced off from the grazing ground concerned and a supply of gravitation water introduced, to the satisfaction of the complainer.

Bellshill Hospital Sewage Purification Works.—The filter syphon was repaired and cleaned, and a chamber constructed on the drain which conveys the drainage from the piggery, so as to prevent solid matter gaining access to the drain leading to the filter and clogging up the syphon.

Birdsfield Estate Sewage Works, Blantyre.—These works were again complained of as a nuisance. During the summer the tank was cleaned out and the filter reconstructed, steel slag being used for this purpose instead of destructor clinker. Cause for complaint was thus temporarily removed. As, however, the works were again allowed to get into an unsatisfactory condition, the matter was taken up with the Hamilton Burgh Authorities and the suggestion made that the drainage from the Burgh area, in which practically the whole of the sewage dealt with originates, should be diverted to the Burgh's main sewer. It was considered that this proposal would be an expensive one, and, rather than adopt it, the Burgh Authorities came to an understanding with the estate proprietor that he should make a contract for the works being put into and maintained in satisfactory order. This was done in the current year.

Bothwellhaugh.—Inspections and inquiries were made in connection with arrangements for the water-closets to be provided for four of the older blocks of houses (comprising 156 houses) forming the village. The whole drainage meantime discharges to the River Clyde, without purification, and, owing to mineral subsidence of the ground through which the main drainage outfall passes, the provision of sewage purification works is a matter of difficulty. The owners, however, formally agreed in October, 1914, when the question was under consideration, to provide adequate sewage purification works, for which plans were then prepared. In discussing the matter, attention was drawn to an upper outfall which conveys the drainage of over 50 houses as well as the two schools in the village, and the question of sewage purification here has also to be considered. This drainage discharges first to a ditch, which also receives pit water, and thence to the Clyde. The matter is still under consideration.

Bowhousebog, Hartwood.—Inspections were made, and observations submitted on the plans for drainage and sewage disposal works proposed for this village, where the provision of water-closet accommodation was under consideration. The village is owned by the Lanark District Board of Control, and the plans for the scheme were prepared by the Middle Ward District Engineer, who also designed the purification works for Hartwood Asylum in 1909. The outfall is to the South Calder, and the works were completed in February of the current year.

Ferniegair.—Considerable attention was given during the year to complaints made of nuisance arising in connection with sewage

pollution of a ditch on Ross Estate, which is a drainage outfall for certain properties in Ferniegair Village. Various suggestions were made for removing cause for complaint, but these were found to be impracticable, and no progress was made so far as removal of the nuisance complained of is concerned, as the matter is bound up with the question of proper drainage for the whole village and the possible requirements of proposed additional housing in the locality.

Glenboig and Garnqueen.—Reference is made in the report for the preceding year to the consideration which had been given by a Joint Sub-Committee of the Middle and Lower Wards to the question of drainage and sewage disposal, and the difficulties in the way of providing these facilities, in view of the limited assessable valuation of the area and the consequent high rate of assessment necessary to meet even minimum requirements. Subsequent to the meeting of property owners held on 2nd November, 1922, at which it was suggested that they might make a contribution to the cost of a scheme, a communication was received by the District Clerk to the effect that the owners concerned could not see their way to make a contribution, and calling on the Local Authority to carry out the work required for proper drainage at the expense of the Public Health General Assessment Rate. The Joint Sub-Committee, however, agreed not to proceed further in providing a scheme, and instructed the respective District Sanitary Inspectors to take action to require the owners contributing to the nuisance conditions to remove cause for complaint. On this being done, a requisition, signed by the necessary number of rate-payers residing in Glenboig, was received, alleging failure or neglect on the part of the Local Authority to keep the village properly cleansed and drained, in terms of Section 103 of the Public Health Act, and calling on the Local Authority to remedy such failure or neglect. This requisition was considered at a meeting of the Joint Sub-Committee held on 23rd May, when they were satisfied that there had been no failure or neglect as alleged, and agreed that all necessary steps should be taken to compel the owners responsible to remove the nuisance conditions complained of. Meanwhile, the silted-up and offensive condition of the Bothlin Burn, on Garnqueen Farm, complaint as to which acutely raised the question of drainage and sewage disposal, still exists, and in a further endeavour to find a remedy the County Medical Officer and others made a special inspection of the main sewage outfalls and Bothlin Burn on 10th May, but no progress has been made.

Meikle Earnock.—The question of the satisfactory disposal of the sewage from the housing scheme, regarding which complaint had been made, is still under consideration by the Middle Ward Special Districts Sub-Committee. Inspections were made in company with the District Engineer and Sanitary staff in the matter.

SEWERAGE AND SEWAGE DISPOSAL WORKS FOR AREAS OUTWITH SPECIAL DRAINAGE DISTRICTS.

The provision of drainage facilities, including sewerage and sewage disposal works, for areas outwith special drainage districts has for many years been a matter of grave concern, especially in the Middle Ward District, where a large number of villages are in urgent need of such services, but where it has not been possible to form special districts owing to the high rate of assessment required to meet the cost of the necessary works. Even in the case of certain existing special drainage districts provided with sewerage, the present rates will require to be considerably increased when complete schemes of sewage purification come to be provided. The whole question was exhaustively considered by the Middle Ward District Committee even before the war, and has again been fully considered by the Committee, representatives of which had an interview with the Scottish Board of Health, when the clamant need for measures being taken to enable drainage facilities to be provided for the areas in question under reasonable terms was impressed on them. The Committee suggested that statutory authority might be sought to limit the drainage assessment to a specified rate within such areas as may be formed into special drainage districts and to charge the balance, so long as necessary, to the Public Health General Assessment levied on the whole of the Middle Ward District, including special drainage districts. The question was also considered in connection with unemployment schemes, and representations made by the Committee urging improved terms of State assistance in respect of relief works. In the Upper Ward the same difficulty has been experienced, although to a much less degree, and the District Committee, having drawn the attention of the County Council to the matter, a conference of representatives of the County Council and the three District Committees to consider the question was suggested. Consideration of the matter was continued in the current year.

BURGHs.—With regard to the Burgh areas, some progress has been made in certain cases with sewerage works, but purification of the

sewage from the whole areas of the Burghs of Airdrie and Coatbridge and from parts of Hamilton and Motherwell has still to be undertaken. Provision is made for purification of the sewage from the Burghs of Biggar, Lanark, and Rutherglen. In continuation of the notes made in preceding reports, the present position of the Burghs may be briefly indicated.

Burgh of Airdrie.—The construction of the central outfall sewer was completed during the year, and of the north outfall sewer in January of the current year. About a third of the south outfall sewer was also completed in May of the current year, but the work has been held up since then, on account, it is understood, of wayleave difficulties. The question of constructing purification works on activated-sludge methods of purification is still under consideration.

Burgh of Biggar.—The sewage discharged by the two main outfalls from the Burgh of Biggar continues to be satisfactorily disposed of by irrigation.

Burgh of Coatbridge.—The construction of the intercepting sewer on the line of the Luggie was continued during the year. The question of the adoption of activated-sludge methods of purification is still under consideration, but it is believed that the Town Council are nearing a decision in the matter.

Burgh of Hamilton. — The County Clerk, as instructed by the Public Health Committee, having communicated with the Burgh Authorities regarding the delay in providing sewage purification works for the Cadzow Burn outfalls, received a reply explaining the difficulties with which the Burgh were faced in obtaining a site for such works on account of ground subsidence due to mineral workings. In connection with the matter a number of inspections and inquiries were made, and information obtained with regard to the mineral workings under the Palace grounds, where a site for purification works was proposed, and near to which an intercepting sewer on the line of the Cadzow Burn has been laid. This information was submitted to the Public Health Committee at their meeting held on 21st November, and, after discussion, the meeting appointed a Sub-Committee to meet with representatives of the Town Council to discuss the whole position, in the hope that a solution of the difficulties might be expedited. This meeting had not taken place at the close of the year. In the current year representatives of the Town Council inspected sewage

disposal works in England where activated-sludge methods of purification are in operation, and, for the information of the Town Council, copies of the recent report on similar inspections made by the County staff were forwarded to the Town Clerk.

Burgh of Lanark. — Reference is made in the report for the preceding year to serious pollution of the River Clyde occurring from the Burgh sewage purification works, to which the attention of the Town Council was drawn. With a view to removing cause for complaint, the Burgh Authorities agreed to take the following remedial measures, which were fully discussed with the Burgh Surveyor, viz. :— (1) the removal of the sludge from the septic tanks; (2) the conversion of one of the secondary filters into a sludge pond, to be used in cleaning out the septic tanks; (3) the digging-over and removing of weeds from the other eight primary and secondary filters; and (4) the extending of the outfall pipe out to the centre of the River Clyde so that a greater measure of dilution would be obtained. It was not considered desirable, in view of the heavy cost involved, to undertake the work of renewing the filtering media meantime. With regard to the cleaning of the septic tanks, the methods adopted were unsatisfactory, and further complaint was made to the Town Council, who ultimately adopted the recommendation of the Rivers Inspector that the sludge should be pumped from the tanks to a sludge pond formed on the Burgh's ground west of the works. Pumping was begun during the month of October, and was completed on 22nd December, having taken about two months to carry out. The extension of the outfall pipe to the centre of the River Clyde had not been undertaken at the close of the year, but the remedial measures taken removed cause for serious complaint.

Burgh of Motherwell and Wishaw.—The Motherwell and Wishaw areas of the Burgh may be referred to separately.

Motherwell Area.—The position of the late Burgh of Motherwell with regard to the construction of the sewage purification works necessary to complete the schemes ordered by the Court for the purpose of preventing pollution of the River Clyde and South Calder Water was again explained to the Public Health Committee at their meeting held on 21st November, when the Committee considered it desirable that the Sub-Committee appointed to meet representatives of Hamilton Town Council should also meet with representatives of the Burgh of Motherwell and Wishaw to discuss the position. The chief obstacle

to be faced in providing the sewage purification works referred to is understood to be the question of suitable sites, the ground on which it was intended to construct works having been seriously affected by mineral subsidence. The Town Council are considering the question of activated-sludge methods of sewage purification, and the meeting with representatives of the Burgh above referred to has been delayed until the current year, in order that the Town Council might first have an opportunity of inspecting the processes of activated-sludge purification in operation in England.

With regard to the existing purification works on the South Calder Water at Coursington, one of the four large filter beds is at present being reconstructed. This filter only operated for a short period after completion of the works in 1908, as it was rendered useless on account of ground subsidence, which also affected the septic tanks for a time. The estimated cost of the work was about £2,450.

Wishaw Area.—There is nothing new to report with regard to the Wishaw area of the Burgh, the sewage from which discharges on to farm lands at Carbarns, on the River Clyde.

Average samples were taken for analysis at Coursington (Motherwell) Purification Works. Two samples of effluent from Carbarns (Wishaw) irrigation fields were also taken. These are referred to in the Chemical Laboratory portion of the report.

Burgh of Rutherglen.—The drainage of the Burgh of Rutherglen is taken into the Glasgow South Side sewerage system, and thence to the City purification works at Shieldhall. Early in the current year cause for serious complaint of pollution of the River Clyde arose, due to discharges of crude sewage from various storm overflows on the joint intercepting sewer which conveys the drainage of the Burgh and of Rutherglen Special Drainage District into the Glasgow sewerage system.

ACTIVATED-SLUDGE METHOD OF SEWAGE PURIFICATION.

The attention of the Public Health Committee, at their meeting held on 5th September, having been drawn to this method of sewage purification, the County Medical Officer was authorised, along with the Chemist and Chief Rivers Inspector, to make inspections at places in England where the method was in operation. These inspections were carried out towards the end of September, and a full printed

report thereon was issued to the Committee. The places visited were the County Borough of Stoke-on-Trent, Manchester, Bury and Sheffield. The Middle Ward District Engineer and the Lower Ward District Committee's Engineer also made inspections. The report issued to the Public Health Committee dealt with (1) methods of sewage purification in operation in the County; (2) the activated-sludge method of sewage purification; (3) details of the various works visited, and also gave a summary of impressions and conclusions, which may be here quoted:—

Having carefully considered the information obtained, it is now possible to summarise the impressions made. In the first place, it cannot be doubted that the activated-sludge method of sewage purification can be successfully applied to the treatment not only of domestic sewage but of sewage containing trades waste, and that it is a distinct advance on the earlier methods of purification. This fact is borne out by the large number of localities in England, as well as in America and Canada, where the method has been adopted. It appears to be equally well adapted for dealing with the sewage of small country towns or districts, or even institutions with a flow of a few thousand gallons per day, to the largest of flows, such as it is proposed to deal with at Sheffield. At Milwaukee, in America, a scheme to deal with a daily flow of 85 million gallons is in course of construction. It also appears to be equally certain that a high standard of purification is obtained by both processes of aeration. The physical characters of the effluents seen at all the works visited were excellent. They were distinctly clear, almost resembling drinking water more than anything else, and to compare the foul crude sewage flowing into the aeration tanks with the continuous stream of clear water overflowing from the settlement tanks was most interesting. This was particularly impressive at Bury, where the whole treatment is meantime accomplished in one tank, occupying a very small area of ground.

While satisfactory purification can be effected by the biological methods of purification employed during the last quarter of a century, the activated-sludge method presents outstanding economic advantages over these earlier methods. The most obvious advantage is the relatively small area of land required, as compared with what is necessary for tanks and filters. This is strikingly illustrated in the case of Sheffield, where about one-sixth the area of land necessary for tanks and filters will be occupied by the new activated-sludge plant. The heavy expense involved in the construction of filters is also avoided, and thus the capital cost of the purification works is greatly reduced; indeed, the Sheffield estimate is that the reduction is one-half. This advantage might not be so great in the case of smaller schemes, and against the saving in capital expenditure the cost of maintenance has to be considered, which, in small works at any rate, would be higher than that in a tank-and-filter scheme where no power and

little attendance are required. At Sheffield the working costs are estimated to be about the same as for sedimentation and filtration. Other advantages of the activated-sludge method of purification are—

- (1) The facility with which a high-class effluent can be produced, especially when dealing with domestic sewage.
- (2) Putrefactive conditions do not arise at any stage of the process.
- (3) No nuisance is created, and works, if necessary, could be put down comparatively close to dwelling-houses.
- (4) The sludge produced is of high fertilising value and is not offensive.
- (5) Existing works in many cases can be readily converted to activated-sludge methods.
- (6) The loss of head is negligible, and where fall is not available for filtration this is important.

Disadvantages of the method, especially for small installations where with existing methods of purification little attention is required, are—

- (1) The cost of the necessary power.
- (2) The cost of attention.

These disadvantages might be more than made up by the saving in capital expenditure. Another disadvantage is the amount of sludge to be disposed of. This, however, should not present any serious difficulty.

With regard to the suitability, from the economic point of view, of an activated-sludge installation for small schemes, it is interesting to note Dr. Ardern's remarks, in an address he delivered last year to the Manchester Section of the Association of Managers of Sewage Disposal Works, on activated-sludge processes in the United States and Canada. Referring to two air-blowing installations, he said:—

There are only a few schemes in Canada, all of them small. At Brampton there is a small unit dealing with $\frac{1}{4}$ million gallons per day, and attended by one man. That fact disposes of the statement that it is impossible to adapt the process to small places. At Woodstock there is a plant dealing with $1\frac{1}{2}$ million gallons per day, and there are also a few plants in connection with institutions, sanatoria, &c. I have details of the cost, which, considered in the

light of the fact that they are small plants, are quite satisfactory. With regard to the small plant at Brampton, the sludge there is lifted into a lagoon and air-dried, and the whole of the production is taken away by a large cut-flower nursery, in which they have about 27 acres of glass houses, and use it specially for roses. They say they have never had a manure which gave them such good blooms, and that they would like to have at least ten times the amount of sludge.

In the absence of comparative figures, the merits of the air-blowing and mechanical-agitation processes, so far as capital cost for a new scheme and maintenance costs are concerned, need not be discussed, as the adoption of a scheme on either method, and particularly the conversion of existing works to an activated-sludge plant, would depend greatly on local conditions. The mechanical-agitation processes seen, however, appealed greatly by reason of the direct application of the means of aeration and circulation of the sewage. In the Third Annual Report of the Ministry of Health (1921-1922), it is stated:—“Of the two applications of the process (‘agitated sludge’ and ‘air blowing’), both have resulted in the production of a good effluent. In the former system (which is in operation at Sheffield) the capital cost of installation is low, indicating the possibility of great savings, and the works are easily maintained. These advantages have not been so clearly demonstrated in the latter system.”

In conclusion, I have no hesitation in recommending that, in arranging for new schemes of sewage purification in the County areas, the activated-sludge method of purification should be considered, and that, where practicable, it should be adopted. In the improvement of existing works where the effluents at present produced are unsatisfactory, their conversion to activated-sludge methods should also be carefully considered.

The report was also issued to the members of the three District Committees, and the Middle Ward District Committee, having considered it, together with a report by the District Engineer, favourably considered a suggestion made by the District Engineer for the construction of an experimental plant, and asked for a report on the proposal, with estimates of cost. In the Lower Ward District, as mentioned in the notes on the respective drainage districts, the new sewage purification works for Bishopbriggs and Auchinairn and the reconstructed works for Barony (Westthorn, Tollcross) are to be on activated-sludge principles.

Streams.

In connection with trade and sewage pollutions, 1,557 inspections were made and 120 samples taken.

The following complaints of alleged pollution of streams were investigated and reported on:—

Barbauchlaw Burn, near Harthill.—On 15th December a telephone message was received from an Inspector of the Scottish Board of Health to the effect that he had, two days previously, observed this stream in the vicinity of Westcraigs to be polluted by coal-dross washings, and that he wished to make an inspection, along with a member of the Rivers Inspection staff. This was accordingly arranged, and took place on 19th December. The stream forms the boundary with Linlithgowshire, and the only possible sources of pollution from the Lanarkshire area are Dewshill Colliery and Westrigg Colliery. The whole of the drainage, including coal-washing effluents, from the former colliery discharges to the stream, while from the latter only a small amount of coal-washing effluent, consisting of surface drainage, enters it. As the alleged pollution was observed above the Westrigg Colliery outfalls, the Board's Inspector assumed that the source of pollution was Dewshill Colliery, to which a visit was accordingly made. At the time of the inspection the stream was quite free from pollution, and the preventive measures at the colliery were found to be complete and in good order. From information obtained from the Manager, however, it appeared that at the time the alleged pollution was observed workmen were engaged cleaning out and deepening a ditch at the colliery, and that in the course of the work there was a disturbance of coaly matter and consequent discoloration of the stream. The Board's Inspector accepted this explanation, and expressed his satisfaction with the preventive measures seen. These, it may be added, have recently been improved by the construction of a silt-recovery tank and adequate settling area.

Cadzow Burn, Hamilton.—The Burgh Authorities complained of coal-dross washings pollution from Cadzow Colliery. Preventive measures were in course of being carried out when the complaint was made, and are now satisfactory. The whole of the effluents from the colliery have also been diverted from the Cadzow Burn to the Meikle Burn.

Clyde, near Camp Bridge. — Verbal complaint was made as to pollution of the Clyde by oil near the intake for the Clyde Valley Electrical Power Station. Inquiry showed that there had been a trace of oil in the effluent from Broomside Colliery.

Ditch at Broomfield Colliery, Netherburn.—Verbal complaint was made regarding pollution of this ditch by oil. This was said to have occurred in exceptional circumstances connected with the fitting up of a new turbine. No further pollution was reported.

Garrion Burn, near Law.—Complaints of pollution of the Garrion Burn by the effluent discharged from Castlehill Colliery are referred to under the heading “Trade Pollutions.”

Gateside Burn, Cambuslang.—Intermittent pollution of the Gateside Burn, which flows through Cambuslang Golf Course, by discharges from Gateside Colliery was complained of on several occasions during the year by the Golf Club. In connection with these complaints many inspections and inquiries were made, and in the current year satisfactory measures were taken to prevent cause for complaint. It should be noted that while there had been cause for complaint of serious pollution by coal-dross washings, pollution of the stream due to pit-water discharges also occurs.

Luggie Water, above Kirkintilloch.—Communications were received from the Dunbartonshire Authorities complaining that, on 18th October, the Mollin Burn, a tributary of the Luggie Water, which forms the boundary with Dunbartonshire for several miles, was found to be polluted by oily matter, and that on 19th October the Bothlin Burn, also a tributary of the Luggie Water, was polluted and black in appearance. Both of these tributaries are in Lanarkshire, and the Luggie Water was said to be seriously affected by their polluted condition. Inquiries were duly made into the complaints, with the following results :—*Mollin Burn.*—The source of pollution of this burn is Bedlay Colliery and Ammonia Works, at which two inspections were made. At both inspections pollution was occurring, as alleged, and appeared to be due to quantities of oil entering the stream—mainly from the bye-products plant. The question of the prevention of pollution of this nature, which is a matter of some difficulty, was fully discussed with the Manager, who agreed to have the burn cleaned out for some distance below the works, and also to reconstruct a series of baffle boards at intervals on the stream near the works and below the various drainage outfalls, for the purpose of collecting the oil, which would be regularly skimmed off. The measures to deal with the main polluting effluents produced at these works, viz., coal-dross washings, spent ammoniacal liquor, and coke-cooling water, are

considered satisfactory. At the inspections made several samples of the stream were taken for analysis. These showed considerable pollution by oily matter, and further inspections were made and action taken in the current year with a view to removing cause for complaint. *Bothlin Burn*.—The source of industrial pollution of this stream is Auchengeich Colliery and Ammonia Works, where two inspections were also made. The conditions complained of pointed to coal-dross washings pollution of the stream, but at both inspections there was no cause for complaint. While the measures provided to prevent such pollution are on the whole satisfactory, certain defects in the method of silt-recovery, which would permit of intermittent pollution such as complained of, were observed. These were carefully gone into with the colliery management and a remedy provided during the current year. There is no cause for complaint of pollution from the bye-products plant.

Mouse Water, Wilsontown.—Complaint was made as to pollution of the Mouse Water by coal-dross washings discharges from Wilsontown Colliery. Inspection showed the pollution complained of to have been due to the washings from the silt-recovery tank having been discharged direct to the ground settling-ponds (on account of a breakdown of a pump) when these ponds were in a silted-up condition. A new pump was provided and other measures taken to prevent cause for further complaint. In the course of the inquiries made into this complaint, a ditch which drains an area round the ammonia works was observed to be badly polluted by oil, which was found to be coming from the benzol-recovery plant. Suggestions for preventing pollution were made and at once given effect to, with satisfactory results.

Newton Burn, Newton.—In July a complaint of alleged pollution of the Newton Burn and River Clyde, the evidence of which was an abnormal yellowish-red discoloration of both streams, was received. The complaint was made by telephone, and, although exhaustive inquiries were immediately made, the source of the pollution was not definitely ascertained. The condition complained of only lasted for about an hour, and so far as is known it has not occurred since.

Interest has been stimulated in the question of rivers pollution by the issue of an Interim Report by the Standing Committee on Rivers Pollution, and the coming into operation on 1st January of the current year of the Salmon and Freshwater Fisheries Act, 1923, to both of

which reference is made below. Reference is also made to a Memorandum recently issued with reference to a proposed Conservancy Board for the Clyde watershed.

STANDING COMMITTEE ON RIVERS POLLUTION.

An Interim Report, dated 21st November, which it is suggested should form the first of a series of Annual Reports, has been issued by this Committee, which was appointed by the Minister of Agriculture and Fisheries in December, 1921. The Committee, which is representative of fishery and industrial interests, including mining interests, was formed for the purpose of evolving agreed provisions as to pollution in the Salmon and Freshwater Fisheries Bill, to secure the effective working of the clauses when they became operative; to collect scientific information as to the condition of purity of the rivers of the country and to assist the Ministry to discover means by which polluting trade effluents can be dealt with so as to promote the purity of the rivers while avoiding interference with the prosperity of industry upon which the country depends for its well-being. The Committee has had the benefit of technical and scientific assistance from the staff of the Ministry of Agriculture and Fisheries and the officers of the Ministry of Health and others.

The work of the Committee since its formation, apart from its activities in connection with the Salmon and Freshwater Fisheries Act, has concerned the investigation of the condition of certain rivers in England and Wales, directly through local Sub-Committees formed to deal with individual watersheds, and also in dealing with particular pollution problems. The aim of the Committee, it is pointed out, is to safeguard the purity of those streams that are free from pollution, whilst constantly endeavouring to raise the standard of all polluted rivers, and for this aim to be achieved it is impressed that the sympathetic co-operation of industry and Public Health Authorities is essential.

The report was brought to the notice of the Public Health Committee (a copy having been sent to each member of the Committee), and, in reply to an inquiry, instructed to be addressed by the County Clerk to the Secretary for Scotland as to the Standing Committee's activities being apparently confined to England and Wales, the Secretary for Scotland stated that it had been decided to arrange for the work of investigation with regard to the pollution of rivers in Scotland to be performed by the Fishery Board for Scotland and the

Scottish Board of Health. The reply also indicated that these Boards had been collecting information on the subject, and that they keep in close touch with the progress of the work being done in England.

SALMON AND FRESHWATER FISHERIES ACT, 1923.

This Act, which, however, applies only to England and Wales, except in certain respects as regards the Esk, Solway, and Tweed, came into operation on 1st January, 1924. Clauses in the Act relating to rivers pollution provide as follows:—

Clause 8 (1), which is based on Clause 5 of the Salmon Fishery Act, 1861, prohibits the discharge into any waters containing fish, or into any tributaries thereof, of any liquid or solid matter to such an extent as to cause the waters to be poisonous or injurious not only to fish, but to the spawning grounds, spawn, or food of fish. The Act of 1861, which is repealed, only applied to salmon rivers and to cases where fish were actually killed.

Clause 8 (2) prohibits the discharge of any trade effluent into waters containing fish by means of any new work, or alterations on an existing work, without notice to the Fishery Board. This subsection does not apply to any work constructed by a Sanitary or other Local Authority under any Act or Provisional Order.

Clause 55 (1) enables a Fishery Board to institute proceedings under the Rivers Pollution Prevention Acts, or to aid any person or Local Authority in instituting proceedings, and to have powers similar to those possessed by a Sanitary Authority.

Clause 55 (2) provides for extending the provisions of the Rivers Pollution Prevention Acts to tidal waters.

Clause 59 (1) gives Fishery Boards power to make bye-laws to regulate the deposit or discharge into any waters containing fish of liquid or solid matter detrimental to fish, spawn, or the food of fish.

The Act does not affect existing Common Law rights.

PROPOSED CONSERVANCY BOARD FOR THE RIVER CLYDE.

There was issued during the year an interesting Memorandum, prepared by Mr. Henry Lamond, Luss, an authority on angling matters, suggesting the formation of a Conservancy Board for the

Clyde and Leven, with the object of promoting such action as would (1) increase the angling possibilities of the whole area; (2) preserve the fishings for all time coming for the public; and (3) incidentally add to the supply of salmon and other freshwater fish for the market. The writer in his Memorandum divides the Clyde into the following four sections, viz. :—

1. *The Upper Clyde*, comprising the main river from its source to the Falls of Clyde, and its tributaries from the Daer Water to the Douglas Water.

2. *The Lower Clyde*, comprising the main river from the Falls of Clyde to Dunbarton, and the following tributaries, viz. :—

Mouse Water.

Avon Water.

South Calder Water.

Rotten Calder Water.

North Calder Water.

River Kelvin and its tributaries.

River Cart and its tributaries.

3. *The Leven and Loch Lomond*.

4. *The Clyde Estuary*.

It will be noted that Sections (1) and (2) embrace the River Clyde and its tributaries in the County of Lanark, and as certain misleading statements, reproduced below, with reference to the condition of the "Lower Clyde" as regards pollution, appear in the Memorandum, the attention of the County Clerk was drawn thereto in the following terms :—

* * * * *

Page 5. Pollution. "Unfortunately all the waters in the area are not now in a natural state. Many of them are so polluted as to be incapable of supporting fish life. The Lower Clyde is wholly in this condition, as are also the tributary streams in this section. . . ."

Page 15. ". . . The main stream of the Lower Clyde and its tributaries are almost barren of life. . . ."

The statements applied generally to the Lower Clyde and its tributaries are quite untrue. The Clyde itself, within the County of Lanark, from the Falls of Clyde to the Hamilton-Motherwell Bridge, a distance of about 16 miles, abounds with fish life, and affords excellent trout and grayling fishing. Even below that point the river supports fish life. The same can be said of several of the tributaries mentioned. Thus the Mouse Water, Nethan (which, however, is not included as a tributary by Mr. Lamond), and Avon Water are all well-known fishing streams. The Rotten Calder is an almost pure stream, and supports fish life.

The Memorandum, together with the above observations thereon, was submitted to a meeting of the Public Health Committee, who instructed the Clerk to communicate with Mr. Lamond with reference to the inaccuracies in the Memorandum as to the condition of the River Clyde and certain of its tributaries as regards pollution. On this being done, a reply was received admitting the inaccuracies and making certain explanations. It is understood that a committee of anglers, with sub-committees for the different sections of the Clyde area, has been formed for the purpose of furthering the suggestions made in the Memorandum.

Food and Drugs.

Senior Inspector and Sampling Officer, - CHAS. MACARA.

The staffing arrangements and the work carried out under the Food and Drugs Acts during the year were very much on the same lines as previous years. The following table shows the yearly average number of inspections; administrative samples taken and analysed, and the percentage found not genuine; and the total samples taken for experimental purposes, for the four quinquennial periods from 1900-1919, and the annual figures for the years 1920-1923 :—

Administrative Samples.

Years.	Inspections.	Procured.	Analysed.	Percentage Not Genuine.	Experimental Samples.
1900-04, -	616	338	316	11·27	—
1905-09, -	828	487	480	12·64	—
1910-14, -	789	574	558	12·16	2,864
1915-19, -	373	340	326	12·96	71
1920, -	702	581	572	7·34	111
1921, -	886	612	602	8·30	50
1922, -	830	790	784	8·16	87
1923, -	731	423	420	8·09	52

The samples procured throughout the County and in the Burgh of Biggar amounted to 423 (exclusive of 52 taken in connection with special investigations), which is in the ratio of 1·35 per 1,000 of the population.

The following tabular statement shows the manner in which samples were procured, the number analysed by the Public Analyst, and the number examined in the County Chemical Laboratory :—

Samples procured formally, - - - -	307
Samples procured informally, - - - -	88
Samples received privately, - - - -	28
Analysed by Public Analyst, - - - -	320
Examined in Chemical Laboratory, - - -	100*
Not analysed, - - - - -	3

The samples not analysed consisted of the following :—Butter, 1; sliced tongue, 1; and castor oil chocolates, 1.

* Does not include 52 samples taken for experimental purposes.

TABLE A.—ALLOCATION OF WORK DONE DURING 1923, UNDER THE FOOD AND DRUGS ACTS, ACCORDING TO PARISHES IN THE THREE DISTRICTS OF THE COUNTY, AND FOR THE BURGH OF BIGGAR.

	Visits to Parish.	Inspections Made.	Samples Procured	Samples found Non-genuine.
<i>Upper Ward Parishes—</i>				
Carlisle, - -	4	32	13	—
Carmichael, - -	1	3	3	—
Carnwath, - -	6	37	22	2
Carstairs, - -	2	5	5	—
Covington, &c., - -	1	2	1	—
Crawford, - -	1	2	1	—
Douglas, - -	5	6	3	2
Lamington, - -	1	1	1	—
Lanark, - -	4	6	3	—
Lesmahagow, - -	17	58	41	6
Liberton, - -	4	4	—	—
Symington, - -	1	2	1	—
Wiston, - -	1	3	3	—
	48	161	97	10

Middle Ward Parishes—

Avondale, - -	5	23	15	1
Blantyre, - -	7	52	11	1
Bothwell, - -	38	158	108	13
Cambuslang, - -	10	89	45	—
Cambusnethan, - -	4	17	7	1
Dalserf, - -	4	20	15	1
Dalziel, - -	—	—	1	—
East Kilbride, - -	9	28	15	2
Glasford, - -	1	2	2	—
Hamilton, - -	2	7	5	—
New Monkland, - -	4	16	12	2
Old Monkland, - -	8	30	12	—
Shotts, - -	11	33	21	1
Stonehouse, - -	2	9	5	—
	105	484	274	22

TABLE A.—*Continued.*

	Visits to Parish.	Inspections Made.	Samples Procured.	Samples found Non-genuine.
<i>Lower Ward Parishes—</i>				
Glasgow (late Barony),	10	21	13	1
Cadder, - -	11	33	16	1
Carmunnock, -	1	2	2	—
Rutherglen, -	2	6	3	—
	24	62	34	2
Burgh of Biggar,	5	24	18	—
Total, - -	182	731	423	34

The nature of the articles procured during the year, the number of each article analysed or examined, and the number found not genuine are recorded in Table B. Of the 420 samples analysed, 34, or 8·09 per cent., were found not genuine. Three samples were not analysed.

TABLE B.—SHOWING THE NATURE AND NUMBER OF SAMPLES PURCHASED AND RECEIVED, THE NUMBER ANALYSED, AND THE NUMBER FOUND NON-GENUINE.

Article.	Procured.	Analysed.	Non-genuine,
Sweet Milk, - - - -	232	232	16
Skimmed Milk, - - - -	7	7	—
Cream, - - - -	2	2	—
Preserved, Thick, or Double Cream, - - - -	4	4	—
Dried Milk, - - - -	1	1	—
Condensed Milk, - - - -	11	11	—
Buttermilk, - - - -	2	2	—
Butter, - - - -	33	32	7
Margarine, - - - -	9	9	—
Roast Fat, - - - -	3	3	—
Lard, - - - -	1	1	—
Dripping, - - - -	4	4	—
Luncheon Sausage, - - - -	4	4	—
Preserved Tongue, - - - -	1	—	—
Cream of Tartar, - - - -	5	5	—
Cinnamon, - - - -	1	1	—
White Pepper, - - - -	1	1	—
Sponge Cakes, &c., - - - -	6	6	—

TABLE B.—*Continued.*

Article.	Procured.	Analysed.	Non-genuine.
Egg Substitute Powder, - - -	1	1	—
Liquid Egg Yolks, - - -	1	1	—
Borax, - - -	1	1	—
Cocoa, - - -	3	3	—
Coffee and Coffee Essence, -	2	2	—
Sugar, - - -	1	1	—
Syrup, - - -	1	1	—
Honey, - - -	1	1	—
Lemon Curd, - - -	1	1	—
Sweets, - - -	1	1	—
Ground Almonds, - - -	1	1	—
Lime Juice and Soda, - - -	1	1	—
Black Currant Wine, - - -	1	1	—
Port Cordial, - - -	1	1	—
Tinned Tomatoes and Tomato Soup,	6	6	—
Vinegar, - - -	3	3	—
Preserved Green Peas and Haricot Verts, - - -	5	5	—
Castor Oil and Castor Oil Chocolates,	2	1	—
Cod Liver Oil Emulsion, - - -	1	1	—
Olive and Eucalyptus Oil, - - -	2	2	—
Seidlitz and Liquorice Powders,	2	2	—
Gregory Mixture, - - -	2	2	—
Liquid Extract of Cascara Sagrada,	1	1	—
Whisky, - - -	53	53	11
White Port, - - -	1	1	—
Ham, - - -	1	1	—
Total, - - -	423	420	34

The following tabular statement shows the number and results of cases of legal proceedings :—

	Legal Proceedings.	Convictions.	Dismissed or Not proven.
Sweet Milk, - - -	5	4	1
Whisky, - - -	3	2	1
Butter, - - -	2	2	—
Margarine, - - -	2	2	—
Total, - - -	12	10	2

MILK.—Table B shows that 232 samples of sweet milk were analysed, and 16 certified to be not genuine, but when the analyses of all the samples are compared with the presumptive standard set up by the Board of Agriculture in 1901 (3 per cent. fat. and 8·5 per cent. solids not fat), which standard is now recommended as a legal limit by the Inter-Departmental Committee on Milk (Scotland), we find there are altogether 17 deficient samples, one sample being slightly low in milk solids other than fat, *i.e.*, 8·48 per cent., although certified by the Public Analyst to be genuine. Six of these deficiencies were within 5 per cent. of the standard, and as the vendors had good records, the County Clerk sent each of them a written caution. The total samples may be classified as follows:—

On and above standard in fatty and non-fatty solids,	-	215
Under standard in both fat and non-fatty solids,	-	4
Under standard in fat only,	- - - - -	6
Under standard in non-fatty solids only,	- - - - -	7
		<hr/>
		232
		<hr/>

Of the samples of sweet milk, 30 were from producers who sell wholesale, 117 from producers who sell retail, two from wholesale-retailers, and 83 from retailers who buy their milk either from a producer or wholesaler. From the analyses of the samples taken from each of these sources the following averages have been calculated, viz. :—

	Number of Samples.	Milk fat per cent.	Solids not Fat. per cent.
Producer-Wholesaler, - -	30	3·56	8·58
Producer-Retailer, - -	117	3·64	8·98
Wholesale-Retailer, - -	2	3·81	9·11
Retailer, - - - -	83	3·64	8·97
Average of all Samples for year,	232	3·63	8·92

Every case of deficient sweet milk is always investigated with a view to finding out either the cause of the deficiency or the party responsible for it. Thus, in a case against a producer the sample was taken in course of delivery of five cans to a wholesale dealer. The official sample was taken by taking a proportionate quantity from each can, and the Public Analyst certified it to be deficient in

milk solids other than milk fat to the extent of 15 per cent., the analysis being—milk fat, 3 per cent., and milk solids other than milk fat, 7·20 per cent. An informal sample was taken at the same time from each of the five cans, and these were on analysis all found to be non-genuine. The analyses and the extent of the deficiency are given in tabular form, as under :—

Can No.			Milk Fat. per cent.	Milk solids other than Milk Fat. per cent.	Deficiency.	
					Fat. per cent.	Solids not Fat. per cent.
1,	-	-	3·2	8·05	—	5
2,	-	-	3·2	7·55	—	11
3,	-	-	3·0	7·8	—	8
4,	-	-	2·8	6·7	7	21
5,	-	-	3·2	8·3	—	2

At the time of sampling the farmer indicated that he was supplying the milk as it came from the cows, but that he had a number of aged cows in his herd, which might account for the milk being of poor quality. In order to test the explanation, it was arranged to make an appeal to the cows, and in the month of February the individual cows of the herd were milked in presence of the Inspector, and samples taken at both the morning and the evening milking. The analyses of the samples show that not a single cow yielded deficient milk. The average analysis for the whole herd at the evening milking was 4 per cent. of fat and 9·3 per cent. of non-fatty solids, and of the morning milking 3·8 per cent. of fat and 9·1 per cent. of non-fatty solids. The farmer was prosecuted, and pleaded guilty, subject to an explanation putting the blame on his servants.

In another case a sample from each of the barrels at the back of a retail cart showed on analysis that one of them was genuine, while the other was certified to be deficient in non-fatty solids to the extent of 12 per cent. At the time of sale it was ascertained that the genuine sample was the milk of the retailer's own cows, while the non-genuine sample was milk he had purchased from a neighbouring farmer. As this was the first time this vendor had been sampled, arrangements were made to procure a sample of the milk as delivered to him by the neighbouring farmer, and on analysis this sample was found to be deficient also in non-fatty solids to the extent of 10 per cent. or thereby. As a result of this investigation no action was taken against the retailer, but successful proceedings were instituted instead against the farmer who supplied the milk.

Two samples were sent in privately by a producer-retailer who lifted a small consignment every morning from a neighbouring farmer. On analysis the samples were found to be greatly deficient in both milk fat and non-fatty solids. Arrangements were therefore made to procure samples in course of delivery. Notwithstanding previous instructions given to the retailer to wait until the arrival of the Inspector before going to the place of delivery, when the Inspector arrived he found the retailer at the farm with the consignment already on his cart. Samples of the morning milk and previous evening milk were taken separately in presence of both parties, and on being analysed by the Public Analyst both samples were certified to be deficient, the cold milk in non-fatty solids to the extent of 12 per cent., and the warm milk in non-fatty solids to the extent of 22 per cent., and also in milk fat to the extent of 8 per cent. Proceedings were instituted, but the case was dismissed on the technical point that the milk had not been taken in course of delivery, the Sheriff finding that the milk had already been delivered when the Inspector arrived. Some time after it was found that the farmer in the above case was delivering his milk to the Lesmahagow Creamery, and samples were taken. On analysis they were found to be genuine milk of excellent quality.

A number of complaints were received during the year. Thirty-two letters were sent to dairymen and others, informing them of the results of analysis of samples, either received from them or taken during the routine work of the department.

MILK OF SPECIAL QUALITY.—In making investigations and taking samples in connection with graded milk, 31 inspections were made during the year, and 56 samples were taken for examination in the County Laboratories.

Details regarding the conditions to be complied with and the number of licences granted under the Milk (Special Designations) Order will be found on page 29 of this Report.

A producer-retailer from Stirlingshire, bottles the milk from his herd, and charges a little extra. Although not graded, his milk is of better quality than the average milk retailed in the County.

SKIMMED MILK.—Seven samples of skimmed milk were procured, but in three of these cases, where the analyses showed 2·3, 2·0, and 2·10 per cent. of milk fat, the article would probably be retailed to the public as sweet milk.

CREAM.—One of the samples of cream was received privately, with a complaint that it was adulterated with extraneous matter. On analysis it was certified to be genuine, but of poor quality.

BUTTERMILK.—The 2 samples of buttermilk were found on analysis to be above the standard of 5 per cent. of milk solids other than milk fat recommended by the Inter-Departmental Committee on Milk.

BUTTER.—Of the 33 samples, only one was certified to contain an excess of water above the limit of 16 per cent. laid down by the Sale of Butter Regulations, 1902. As this sample was fresh butter made from surplus milk at a Co-operative Dairy, it was deemed sufficient to give the vendors a written caution, and a further inspection and sampling showed that the matter had been remedied.

Careful attention was given during the year to the detection of the practice of selling margarine for butter, and with this in view agents were employed to procure informal samples. It was found that the practice was not prevalent to any great extent, but there are still one or two vendors who resort to this fraudulent practice.

One of the informal samples was procured from a grocer in a small way of business, who said he purchased a few lumps from a vanman, and that they were guaranteed verbally to be genuine butter. As the vanman also sold by retail, an official sample was obtained from him by means of an agent, but on analysis this sample was certified genuine. Another informal sample was subsequently procured by means of an agent from the aforementioned grocer, which on analysis showed that margarine was being sold for butter.

Another informal sample was received privately from a householder, and on analysis was certified to be margarine. On investigation it was found that this householder had ordered 4 lbs. of Irish lump butter from a merchant who was advertising in the press: "Irish Lumps at 1s. per lb." Arrangements were therefore made for the householder ordering another supply, with a view to taking a sample in the course of delivery. The Inspector arranged to be present when the postman arrived at the house with the parcel, and take a sample from the consignment. A supply was also ordered from the same merchant by a householder in another part of the County.

when the same procedure was carried out. On analysis both samples were certified to be margarine. Legal proceedings were instituted, and on the case coming up in Hamilton Sheriff Court a plea of guilty was tendered, and a fine of £5 imposed.

Samples were also procured, by means of an agent, in three shops where the shopkeepers had been previously warned of their failure to label margarine exposed for sale. The agent asked for lump butter at 1s. per lb., and it was supplied in all cases in a margarine wrapper. In two of the cases the lumps from which the agent was supplied were not labelled "margarine," as required by the Statute. Successful legal proceedings were taken in these two cases.

WHISKY.—53 samples were obtained, and 11 were certified non-genuine, in respect that they were under the statutory limit for strength (35 degrees under proof), or the notice given as a protection under Section 8 of the 1875 Act was inadequate. This question of notice was settled in the High Court of Justiciary in a Fife case, where the following notice was exhibited on the cask, viz. :—

“All spirits in this establishment are diluted. No strength guaranteed.”

The following is an excerpt from a press report giving the decision of the Court, viz. :—

The Lord Justice-General said that whatever requirements the notice must meet, at least it must meet that of being effective to secure the buyer's implied consent to accept something other than whisky as defined in view of the statutory provision. The notice must clearly and unambiguously acquaint the purchaser with the fact of the character of the prejudice which he was asked to accept. It was plain that an ambiguous or equivocal notice would not do. Nor would it do to adopt a form of notice of which it was possible to allege that on study and reflection in an atmosphere cooler than that of the public-house it might be possible to derive from it an intention to give notice that a purchaser was asked to undertake a certain definite prejudice, and was asked to cure by his consent what would otherwise be an illegality. If that were so, it was clear that a notice that the spirituous liquors which were on sale in the public-house were diluted would not do, and equally clear that the notice was made no better by adding that the strength of these spirituous liquors was not guaranteed. No notice of that kind came anywhere near the plain and unambiguous notice required to the persons who casually resorted there.

Lord Cullen said they were asked to give the words in the notices here the meaning in the mind of a customer standing at the bar and reading them that, on reading the notice, when giving an order for whisky, his order might be duly fulfilled if he was given whisky diluted with water to any extent. Thus, had he ordered a glass of whisky, and having received a glass of fluid containing, say, half a teaspoonful of whisky, the rest being water, he was bound to regard himself as duly notified that his order for a glass of whisky had been duly fulfilled, and that he had no ground for complaint. His Lordship was unable to read the notices as conveying any such notification to the purchaser. He concurred with the Lord Justice-General.

Lord Sands also concurred.

Towards the end of the year inspections to licensed premises show that the above decision had had salutary effect. Many of the traders had reverted to the pre-war custom of keeping the strength of their whisky below the limit allowed by statute, and those who still sold (diluted spirits) whisky of a strength weaker than 35 degrees under proof generally brought the matter to the attention of the public by a plain and distinct notice.

MARGARINE CONTRAVENTIONS.—The following tabular statement shows the number and nature of the contraventions of the Margarine Acts :—

NATURE OF CONTRAVENTIONS.

Want of statutory labels, - - - - -	29
Want of wrappers, - - - - -	8
Exhibiting trade advertisement improperly describing margarine, - - - - -	13
Dual offence under Margarine and Food and Drugs Acts, - - - - -	3
<hr/>	
Total contraventions, - - - - -	53
<hr/>	

Nine samples, seven formal and two informal, were taken and analysed in connection with certain of the contraventions in which legal proceedings might be instituted. Successful proceedings were instituted in two cases, and the remainder were cautioned either verbally or by letter from the County Clerk.

It is interesting to note the marked change that has taken place in the method of distributing margarine. Before the war margarine was largely sent out from the factories in bulk, similar to butter, although one or two brands were being sold made up in $\frac{1}{2}$ -lb parcels, wrapped in paper inscribed with a fancy name. Of late years this latter practice had increased to such an extent that it may be said the trade is conducted mostly in this manner. Recently it has become the practice to have printed matter other than "Margarine," such as "Margarine mixed with Butter," printed on a small slip for attachment to the parcels of margarine sold by retail, and on trade advertisements and circulars. As this seemed to be an infringement of Section 8 of the Butter and Margarine Act, legal proceedings were instituted as a test case against a limited company. On coming before the Sheriff Court at Hamilton a conviction was obtained. The case was appealed to the High Court of Justiciary, where the Sheriff's decision was upheld. As the case is of some interest and importance, the following is a summary of the Sheriff's decision, followed by the judgment of the High Court given in full, namely :—

On 17th May, before Sheriff Shennan, in Hamilton, proof was led and debate followed. A verdict of acquittal was given on the first charge, which was that the respondents exposed for sale by retail, on a marble structure fixed to the counter, a parcel of margarine without having a label attached marked "Margarine." The Sheriff held that as the margarine was not exposed to the view of the customer it was therefore not exposed for sale. The second, third, and fourth charges, which were found proven, were to the effect that the respondents, by the labels attached to two parcels of margarine, and in an advertisement of margarine, described it by a name other than either margarine, or a name combining the word margarine with a fancy or other descriptive name approved by the Board of Agriculture and Fisheries. The Sheriff held that the words "Mixed with Maypole Butter" form part of the name by which the article is described and under which it is offered for sale. The Sheriff also convicted the respondents on the second alternative branch of the fifth charge, in respect that they "in" a wrapper enclosing margarine, described it by a name other than margarine or margarine combined with an approved fancy or other descriptive name. The words here used were "Mayco Margarine. Mixed with Maypole Butter.", appearing on a small printed slip bearing also other matter of a laudatory nature, and placed under the fold of the ordinary statutory paper wrapper. The Sheriff imposed a modified penalty of £4.

OPINIONS OF JUDGES IN STATED CASE ON APPEAL
 FOR
 MAYPOLE DAIRY COMPANY, LIMITED,
v.
 THE COUNTY COUNCIL OF LANARK.

18th July, 1923.

THE LORD JUSTICE-CLERK:—My Lords, the appellants in this case are charged with a contravention substantially of Section 8 of the Butter and Margarine Act of 1907. That is, no doubt, a penal statute, and accordingly falls to be strictly construed. We are only concerned at this stage with the second charge which was brought against the appellants, and we are informed that a decision on that charge rules the questions which arise upon the remaining charges which were brought against them. The Sheriff-Substitute has convicted the appellants upon the second charge, and the question which arises for our decision is whether he was right in the conclusion at which he arrived.

My Lords, the section with which we are chiefly concerned, as I said a few moments ago, is Section 8 of the Butter and Margarine Act of 1907, which provides that “if in any wrapper enclosing ‘margarine, or on any package containing margarine, or on any label attached to a parcel of margarine, or in any advertisement or invoice of margarine a person dealing in margarine describes it by any name other than either ‘margarine’ or a name combining the word ‘margarine’ with a fancy or other descriptive name approved by the Board of Agriculture and Fisheries and printed in type not larger than and in the same colour as the word ‘margarine,’ he shall be guilty of an offence under this Act.” My Lords, that section offers just one more illustration of the anxious and meticulous care with which the Legislature has set out to protect the public in the matter of the purchase of margarine as compared with margarine and butter.

My Lords, when one goes to the findings in fact which relate to this question—they are set out by the learned Sheriff-Substitute on page 5 of the case—he says:—“The facts are not in dispute. The article was duly proved to be margarine. The word ‘Mayco’ is a fancy name duly approved by the Board of Agriculture and Fisheries, and permitted to be combined with the word ‘margarine’ under Section 8 of the Butter and Margarine Act, 1907. In all the labels referred to the words ‘Mayco Margarine’ are printed in large letters, with the words ‘Mixed with Maypole Butter’ immediately below, printed in smaller letters. The wooden disc contained the words, ‘Mixed with Maypole Butter’ in prominent letters . . . I found that the name by which the appellants’

“margarine was described was ‘Mayco Margarine, mixed with “Maypole Butter,” and that in so describing it the appellants were “guilty of a breach of Section 8 of the Butter and Margarine Act. “1907.”

The question, my Lords, therefore, is whether the Sheriff-Substitute reached a right conclusion on that matter. Put in another form, it is—are the words “Mixed with Maypole Butter” part of the name? Whether or not they are, I think that the words are calculated—although I by no means suggest intended—to deceive the public. The public would certainly be apt to conclude, reading these words, that they were getting something other and better than the ordinary type of margarine. In point of fact they are not. That, however, is not sufficient for the decision of the question before us. We must consider whether, in point of fact, the section has been contravened, whatever the position of the public *vis-a-vis* of that section may be.

The section, so far as I can see, contemplates three different descriptions of margarine; in the first place, it may be described only by its name, “margarine.” In the second place, that name may be combined with a fancy name approved of by the Board of Agriculture and Fisheries, and the fancy name “Mayco” is a type in this second category. In the third place the word “margarine” may be combined with a descriptive name in accordance with the terms of the section. In my opinion these words, “Mixed with Maypole Butter,” are a part and an integral part of the intimation made, and also a part and an integral part of the name in the sense of the section. The Legislature clearly contemplated that one type of name might be merely descriptive in character, and so enacted. If the words be transposed, as was suggested by Mr. Keith, the matter becomes clear, as will be seen from the illustration on page 5 in connection with the charge from which the Sheriff-Substitute acquitted the appellants.

My Lords, one cannot leave out of account, in disposing of the case, Section 10 of the Act. If the appellants had applied to the Board of Agriculture and Fisheries for permission to add that part to the name of their margarine—“Margarine mixed with Butter”—it is perfectly plain from the terms of Section 10 that that request would have been refused. And the intention of the Legislature, I think, is not obscure. It is, I apprehend, this, that in matters of description of margarine, butter and margarine should be kept, so to speak, in watertight compartments. The appellants in this case have, I will not say deliberately, but ingeniously evaded the provision of Section 10 now submitted to our view. I regard those words we are now construing as not a sentence, as the Dean of Faculty put it, but as part of the name.

I think the Sheriff-Substitute was right in convicting the appellants, and I propose to your Lordships that we should answer the question put by him in the affirmative.

LORD HUNTER.—My Lords, I agree. The point involved is a short one, but I have found the answer to the question attended with considerable difficulty. The appellants are not, so far as I can see, guilty of an offence under the Act if they accurately describe the goods they are selling. On the other hand, in connection with the sale of their goods they must be careful in the name under which they sell them.

Now, what they are selling is an article called “Mayco Margarine,” but they sell it associated with the words “Mixed with Maypole Butter.” I think, on a careful consideration of the different documents in this case, that there were facts before the Sheriff-Substitute that entitled him to hold that the words “Mixed with Maypole Butter” were associated with the words “Mayco Margarine” as together to constitute a descriptive name of the article which was being sold.

If that is a correct inference to draw in point of fact, as I certainly think it is a legitimate inference, then an offence under Section 8 of the Act of 1907 has been committed. I think that the Sheriff-Substitute reached a right conclusion.

LORD ANDERSON.—My Lords, I think this stated case discloses that the appellants have been guilty of a very technical breach of this statute, from which I do not think that the public would have been very seriously damnified. But I agree with your Lordships that the Sheriff-Substitute was right in holding that a technical breach had been made out.

Public Health (Condensed Milk) Regulations (Scotland) 1923.

These Regulations have been made by the Board of Health, and prescribe the labelling and composition of condensed milk as set down in the schedules. They were to come into force on 1st October, 1923, but by an amending Order the enforcement date was altered to 1st November, 1923. The Authority under Part II of the Regulations in Counties is the District Committee, but provision is made for the combination of two or more Local Authorities. Part II prescribes the manner of labelling condensed milk (full cream) and skimmed or machine-skimmed milk, and that they shall contain the following percentages of milk fat and milk solids, as set down in the Second Schedule, viz. :—

Description of Condensed Milk.	Percentage of Milk Fat.	Percentage of Milk Solids including Fat.
Full cream, unsweetened,	9·0	31·0
Full cream, sweetened,	9·0	31·0
Skimmed, unsweetened,	—	20·0
Skimmed, sweetened,	—	26·0

Eleven samples were procured during the year and analysed. Before November there was no standard for condensed milk, but after that date attention was given at all inspections under the Food and Drugs Act to see that the requirements as regards the labelling of condensed milk were complied with. Two cases of improper labelling were detected, but, as it was old stock not yet disposed of, a caution to the vendors was deemed sufficient. Two informal samples, one full-cream milk and one skimmed, were taken, and were certified to comply with the standard laid down in the Regulations.

MISCELLANEOUS ARTICLES.—Four samples of luncheon sausage were analysed for the presence of preservatives, and were certified to contain 6·9, 13·5, 14·4, and 15 grains of boracic acid per pound of sausage respectively. The amounts of preservatives were within a trade limit of 17·5 grains per lb., which has come to be looked upon as reasonable.

Of four samples of preserved cream, three contained crystallised boracic acid to the extent of ·10, ·24, and ·25 per cent. respectively, and one was free from preservatives. The above amounts are within the limit laid down in the Public Health (England) Regulations as to Food.

A sample of liquid eggs (yolks) procured from a barrel at the premises of a baker was, on analysis, certified to contain 1·52 per cent. of boracic acid. The Bakery Allied Traders' Association are alive to the necessity of controlling the amount of boracic acid in liquid eggs, and have issued a manifesto binding themselves not to purchase liquid whole eggs containing more than 1 per cent. of boric acid, and also passed a resolution that bakers should not use liquid eggs in the manufacture of articles of food which are likely to be used by infants and invalids.

Six samples of sponge cake were analysed for the presence of boracic acid, which indicates that imported eggs (liquid) have been used in baking. Four of them were certified to contain 3·2, 4·5, 6·4, and 9·2 grains respectively per pound of cake, and two were certified free from boracic acid. These amounts of boracic acid, however, did not warrant any action being taken.

A sample of preserved tongue was examined in the Bacteriological Laboratory, and was found to be free from bacteria,

A sample of egg-substitute powder was certified to be a mixture of rice, flour, phosphates, and bicarbonate of soda.

Three samples of fruit wine cordial were analysed for the presence of preservatives, and were found to be free.

A sample of highly-coloured sweets was analysed and certified to be free from arsenic and other metallic impurities.

A communication was received from the Board of Health, pointing out that excessive quantities of tin were being found in samples of tinned tomatoes, and directing attention to a case in England, under the Food and Drugs Acts, in which tin to the extent of $5\frac{1}{2}$ grains per lb. had been detected. In consequence, six samples of tinned tomatoes of various brands, and including tomato soups, were procured in the County area. On analysis tin was found to be present in all the samples, in amounts ranging from $\cdot 50$ grains to $2\cdot 4$ grains of tin per lb. of tomatoes. These amounts are small, and do not warrant legal action. In a report of 1906 to the English Local Government Board on the presence of tin in canned foodstuffs, Dr. G. S. Buchanan states, "the contents of a single tin, containing between $1\frac{1}{2}$ and 2 grains of tin per lb., might ordinarily be taken without deleterious results."

Four samples of preserved green peas and one of haricot verts were certified to contain sulphate of copper added to preserve the colour. The presence of sulphate of copper was declared on the labels. The amounts present in the samples did not warrant any action being taken, although it was recommended by the Departmental Committee, appointed in 1901 to inquire into the use of preservatives and colouring matter in the preservation and colouring of food, that the use of copper salts in the so-called greening of preserved foods be prohibited.

Of the 10 samples of drugs taken, all were, with the exception of the Seidlitz powder, certified genuine. The Seidlitz powder did not conform to the weights prescribed in the British Pharmacopœia, and in this case the vendor was given a caution.

UN SOUND FOOD.—In the course of their duties under the Food and Drugs Acts the Inspectors always give their attention to the condition of tinned and other foods, as regards their soundness and fitness for human consumption. In one shop a box of apples was detected

in a decomposed state, and the shopkeeper agreed to have them destroyed. A sample of a brand of condensed milk regarding which complaints had been received was taken for examination, but nothing was found to indicate unsoundness.

Communications were received from time to time during the year from the Port Authorities of Glasgow and Leith, stating that the following goods, which had been damaged by fire and water, had been consigned to traders within the County Area, namely :—(1) dessicated cocoanut and green peas, consigned respectively to a baker in the Upper Ward and a miller in the Middle Ward; (2) a consignment of tinned pork and beans to a pig-feeder in the Lower Ward; and (3) a consignment of flour to a baker in the Upper Ward. Inspection was made of these consignments, and it was found that (1) the dessicated cocoanut was practically undamaged, and fit to be used for baking purposes, whilst the peas were so badly damaged that they could only be used for the feeding of cattle if mixed with other grain in the making of a feeding cake; (2) that the contents of the tins of pork and beans were being used as feeding stuff for pigs; and (3) the consignment consisted of 618 bags, and certain parts of the flour were found to have been affected by water, being caked in parts. When these caked parts were removed and the flour sifted, it was found to be quite wholesome and fit for baking purposes. The caked parts were ground down for cattle-feeding purposes.

A complaint received through the police regarding veal purchased from a butcher being unfit for consumption was investigated. When inspected, however, the veal had been in the purchaser's house for three days, and was then in a state of decomposition. There was a difficulty in saying who was responsible, as the seller stated that it was fresh when he sold it.

In connection with reports appearing in the press regarding the consumption of methylated spirits as a beverage, inquiries were made regarding the traders who sell this spirit in the County. It was found that the sale of methylated spirit is entirely confined to apothecaries' shops, and is controlled by the Excise, who grant licences for the purpose. Numerous chemists were interviewed, and it was apparent that they were fully alive to the necessity of exercising great care in the sale of this commodity, and whenever a purchaser is suspected of procuring it as a beverage he is always refused.

SALE OF FOOD ORDER, 1921.—The sections of the above Order which have not been repealed relate to the labelling of imported meat, excepting ham and bacon, and the prohibition of the words “fresh” or “new laid” in connection with the sale of imported eggs. The following contraventions were detected, viz. :—

Imported eggs, not labelled,	-	-	-	-	4
Imported meat, not labelled,	-	-	-	-	7
Imported pork, not labelled,	-	-	-	-	2

These contraventions were all reported to the County Clerk, who communicated with the offenders giving them a caution.

Fertilisers and Feeding Stuffs.

Table C shows the number of samples obtained and the number found deficient.

Eleven inspections were made, and 21 samples procured, viz., 17 fertilisers (9 formal and 8 informal), and 4 feeding stuffs (all informal, and three of them received privately).

Of the samples of fertilisers seven were taken with the formalities of the Act at the request of the Avondale Farmers' Trading Association, and two at Hairmyres Colony. Only one of the sellers notified was present at the sampling.

Two of the informal samples were taken at a farm in the Upper Ward, and six from consignments lying at railway stations in the Upper Ward, consigned to individual farmers in the district, who were afterwards written to for the invoices.

All the formal samples were certified to be satisfactory, except a sample of sulphate of potash salts, taken about a month after delivery of the consignment, which was certified to be deficient in sulphate of potash to the extent of 35·13 per cent. The interval of time between delivery of the consignment and the sampling debarred any action being taken, 10 days being the time specified in the Act.

Four of the informal samples were deficient as compared with the guarantee on the invoices, viz., one sample of superphosphate, certified to be deficient in soluble phosphates to the extent of 4·9 per cent.; one sample of grain and grass manure, to be deficient in insoluble phosphates to the extent of 0·99 per cent., but this was more than counterbalanced by the excess of water-soluble phosphates; one sample of grain manure, to be deficient in insoluble phosphates and citric-soluble phosphates to the extent of 2·97 per cent. and 0·75 per cent. respectively; and one sample of potato manure, to be deficient in citric-soluble phosphates, insoluble phosphates, and potash, 2·28 per cent., 0·10 per cent., and 0·69 per cent. respectively. The guarantee on the invoice for the sample of ground phosphate stated 65 per cent. soluble phosphates, but this was obviously a mistake, and, as admitted

by the seller, should have been insoluble phosphates. Copies of the Analyst's certificates were sent to all the parties concerned, and in cases where deficiencies occurred it was afterwards found that the buyer had taken the matter up with the seller.

The four samples of feeding stuffs were:—One rice meal, procured at a farm; thriving mixture; bean meal; and sterilised bone meal.

On analysis by the Agricultural Analyst, the sample of rice meal was certified to be not genuine. Some correspondence arose with the sellers of the article, who stated that they did not admit the analysis. The sample of bean meal was received from a farmer who delivered the beans to a miller for the purpose of grinding into bean meal, and he alleged that the miller had adulterated it in the process. The Agricultural Analyst in his certificate states that “a microscopical examination showed that the sample was not pure bean meal, but contained a small proportion of wheats and oats, the proportion of which would be rather less than 10 per cent.” The samples of thriving mixture and steamed bone meal were received privately from farmers. The former was a high-priced “mixture,” and no doubt would be sold as having other properties than is represented by the constituents guaranteed. The latter was mixed with the ordinary rations of dairy cows and young growing heifers by way of experiment. The sample was accompanied by a circular giving extracts from the Journal of the Ministry of Agriculture on the question of adding mineral substances to the rations of dairy stock, from which the following may be quoted:—

“In connection with this recent tendency to include bone flour in the stock foods, it is stated that many British agriculturists do not always realise that every 10 gallons of milk contained nearly half-a-pound of phosphate of lime, so that a cow giving 17 quarts of milk a day requires $1\frac{1}{2}$ lbs. of phosphate of lime each week, which is equal to about $\frac{1}{2}$ lb. of bone meal per day, or about 3 lbs. per week, or $1\frac{1}{2}$ cwt. per annum. Similarly every 100 lbs. of cheese contains $2\frac{1}{2}$ lbs. of phosphate of lime, requiring 5 lbs. of bone meal to replace it.

“There is a heavy demand for mineral substances in the case of all young growing stock, animals heavy in young, and dairy cows in milk. It is, therefore, advisable to supply these classes of stock with a suitable mineral matter.”

The Agricultural Analyst certified both samples to be conform with the guaranteed analyses. Copies of the certificates of analysis were sent to the farmers from whom the samples were received.

A complaint was received from a farmer regarding the failure of a seller of feeding-stuffs to state on the invoice the percentage of oil and albuminoids in dairy cubes. As the transaction had taken place more than three months previously, and for other reasons, no action was taken in the matter, but the farmer was recommended to take the necessary steps for having official samples taken of future consignments.

The foregoing record of work affords another illustration of the weakness of the Fertiliser and Feeding-Stuffs Act as an administrative measure for the protection of buyers of fertilisers and feeding-stuffs against false warranties, by reason of the difficult and often impracticable procedure laid down by the statute for the taking of samples. Practically the only buyers in the County who request that samples be taken are the Avondale Farmers' Trading Association, who buy large consignments every spring, and, of course, merchants know that the fertilisers and feeding-stuffs which they supply to this Association will be subjected to sampling and analysis. To the great majority of the farmers in the County outside this Association the Act is a dead letter. Individual farmers either do not know of the procedure necessary for getting official samples taken, or they do not want to have the appearance of suspecting the *bona fide* of their merchants, which would be created by the statutory formality of giving three days' notice of the sampling to the seller, so that he may, if desirous, be present.

From the large percentages of the informal samples reported above as deficient or unsatisfactory, it would appear that there is need for better control of the sale of fertilisers and feeding-stuffs by amending the Act so as to repeal the difficult formalities that at present exist, and substitute therefor some simpler and more practical procedure. In this connection it is gratifying to report that towards the end of the year the Ministry of Agriculture and Fisheries appointed a small Departmental Committee to inquire into the operation of the Fertiliser and Feeding-Stuffs Act, 1906, to advise whether any, and, if so, what amendments are necessary in order to render the execution of the Act more economical and effective, and report accordingly. In connection with this inquiry a communication was received by the County Clerk in October from the County Councils Association, stating that, on the invitation of the above Committee, they had

appointed a representative to give evidence on behalf of the Association, and asking a note of the experience of Lanarkshire, with a view to the preparation of their representative's précis of evidence.

A memorandum, prepared by the Chief Inspector, giving a note of the work done and suggesting a number of amendments indicated by experience in the execution of the Act in the County, was transmitted by the County Clerk to the Secretary of the County Councils Association. The representative appointed by the Highland and Agricultural Society of Scotland to give evidence also applied for some data, and a copy of the memorandum was also sent to him.

TABLE C.—SHOWING THE NUMBER OF SAMPLES OBTAINED AND NUMBER FOUND DEFICIENT, 1923.

Fertilisers.			Feeding Stuffs.		
Name.	Obtained.	Deficient.	Name.	Obtained.	Deficient
Superphosphate, -	5	1	Rice Meal,	1	1
Ground phosphate, -	1	1	Thriving Mixture,	1	—
Bone Meal, -	1	—	Bean Meal, -	1	1
Sulphate of Ammonia,	1	—	Steamed Bone Meal,	1	—
Basic Slag, -	1	—			
Kainit, -	2	—			
Potash salts, -	1	1			
Grain and Grass					
Manure, -	3	2			
Potato Manure, -	1	1			
Sulphate of Potash, -	1	1			
Total,	17	6	Total,	4	2

Shops Acts, 1912 to 1921.

The administration of the Acts was continued in the same manner as in former years, with a view to assisting shopkeepers and their assistants to obtain the benefits conferred on them by the Statute in the way of better working conditions. Legal proceedings against offenders are only instituted as a last resort, where cautions have not been effective in putting a stop to infringements of the terms of the Statute. In the main, offenders are generally smaller shopkeepers and itinerant hawkers. Table D shows the number of inspections to localities, visits to shops, and contraventions detected under the Acts for the three Wards of the County. There were 169 contraventions. These consisted of 44 cases of failure to close at time fixed on weekly half-holidays and under Closing Orders; 2 cases of street trading; 8 cases of supplying non-exempted goods; 1 case of failure to give assistants proper intervals for meals; 2 cases of employing young persons under 18 more than 74 hours per week; and 112 failures to exhibit notices in terms of the Act.

The following notices were issued to shopkeepers. The first three are supplied free of charge, but a charge of sixpence is made for the "mixed trades" notice, to cover the expense of printing and postage:—

Shop Assistants,	...	...	...	...	...	29
Shops' Weekly Half-Holiday,	...	...	...	...	...	3
Employment of Young Persons under 18 years,	...	...	...	...	...	6
Mixed Trades,	...	...	...	...	...	75

The following paragraphs give more particulars regarding the inspections made in connection with the administration of the Acts and the irregularities detected:—

Shops' Weekly Half-Holiday. — The weekly half-holiday Orders operative in the County area apply to (1) the Middle Ward; and (2) the Parish of Carluke. By these Orders, Wednesday is fixed as the day of the weekly half-holiday. In all the other areas of the County the shopkeepers arrange amongst themselves with regard to the day which they will choose for closing their premises in the afternoon, and intimate such arrangement by means of a notice exhibited in their premises.

Eighty localities were visited on the days fixed for the weekly half-holiday, and, generally speaking, the closing of shops at 1 p.m. was very well observed.

122 contraventions were detected, consisting of 10 failures to close on weekly half-holiday; 16 failures to close promptly; 8 cases of sale of non-exempted articles; 1 case of street trading; 87 cases of failure to exhibit the statutory notice specifying that only exempted articles are sold.

As the result of complaints received, three localities were visited, and shops open for the sale of exempted goods were tested by means of an agent. A lad was instructed to purchase non-exempted articles. In one locality, where three shops were tested, the shopkeepers refused to supply non-exempted goods; in another, out of ten shops tested, the agent was supplied with a non-exempted article (tea) in one shop, and was refused in the others; and in the third locality one shop was tested at 8.30 p.m. on the weekly half-holiday, and a non-exempted article (butter) was supplied. Informations regarding the above offenders were lodged with the County Clerk, and brought before the General Purposes Committee. It was considered sufficient meantime to send a written caution to the first offender, while with regard to the second case, where butter was sold at 8.30 p.m. on Wednesday, a contravention against both the Weekly Half-Holiday Order and the Shops (Amendment) Act, 1921, legal proceedings were instituted, and a small fine was imposed. With regard to all other offences detected, it was deemed sufficient to give them verbal cautions meantime.

A complaint was received from Cambuslang Merchants' Association regarding certain bakers and purveyors of fancy cakes failing to observe the weekly half-holiday. The trade of baker is one of the businesses exempted by the Acts from the provisions as to closing for a weekly half-holiday, and is not included in the Middle Ward Half-Holiday Order. The principal bakers in Cambuslang district close their shops for a weekly half-holiday on Wednesday afternoon, under the belief that they were brought under the Weekly Half-Holiday Order by the Closing Order (Evening) of the 9th June, 1920. The position, however, as regards authority to compel those traders to close is not quite clear, but, as a result of communication with the County Clerk and interviews with the Inspector, the shopkeepers complained of agreed to fall in with the other traders in closing their shops on Wednesday afternoon.

Closing of Shops in Evening.—Nine evening inspections were made at Cambuslang, where there is a Closing Order in operation. 18 contraventions were detected of failures to close promptly at the hour specified in the Order. Each of the offenders was given a verbal caution, and subsequent reinspections showed that the offences were not repeated.

Street Trading.—At all inspections in connection with closing of shops on the weekly half-holiday and in the evening, attention is given in regard to street trading. Two contraventions were detected under this heading. The vendors pleaded ignorance of the requirements of the law, and verbal cautions were given.

Assistants' Weekly Half-Holiday. — At all inspections special attention was given with a view to ascertaining that the provisions of the Act under this heading were carried out. There were 20 failures to exhibit the statutory notices, stating the days on which the assistants got their half-holidays. Forms of notices were sent to each of these shopkeepers, so that they might comply with the terms of the Statute.

Failure to give Assistants proper Meal Hours.—One case of failure to give a female assistant employed till 7 p.m. a break for tea, was detected. The employer of the girl was interviewed, and the matter satisfactorily arranged.

Employment of Young Persons under 18 Years more than 74 Hours per Week. — Two offences under this head were detected, in regard to two young girls, employed respectively in a dairy and a hardware and newspaper-vendor business. The employers were interviewed by the Inspector, and in both cases the hours of the young persons were rearranged, in compliance with the requirements of the Statute. An anonymous complaint was received regarding the over-employment of young persons in shops at Stonehouse. All the shops (21) were inspected, but nothing was detected to show that the complaint was well founded. In five shops where young persons were employed, the statutory notices were not exhibited. Notices were sent to each of these shopkeepers.

Communications.—Many special visits were made as the result of communications received from traders requesting information regarding the provisions of the Act.

Shops Acts.**TABLE D.—SHOWING INSPECTIONS, VISITS TO SHOPS, &C., AND CONTRAVENTIONS IN THE THREE WARDS OF THE COUNTY, 1923.**

Inspections and Contraventions.	Upper Ward.	Middle Ward.	Lower Ward.	Total for County.
Inspections to Localities, - -	20	97	19	136
Visits to Shops, &c., - - -	45	331	69	445
Contraventions—				
Failure to close: Weekly Half-holiday and under Closing Orders, - - - - -	5	35	4	44
Supplying non-exempted goods, -	—	8	—	8
Street Trading, - - - -	—	2	—	2
Failure to give assistants weekly half-holiday at 1.30 p.m., -	—	—	—	—
Failure to give proper intervals for meals, - - - -	—	—	1	1
Failure to provide seats for female assistants, - - - -	—	—	—	—
Employing young persons under 18 years more than 74 hours per week, - - - -	—	1	1	2
Failure to exhibit notices in terms of Act, - - - - -	5	87	20	112
Total Contraventions, -	10	133	26	169

By-Laws Regulating Places of Public Refreshment.

14 inspections were made, of which 5 were in connection with the structural arrangements of premises, and 9 as a result of communications received from vendors selling aerated waters and ice-cream, asking for information as to the closing hours, &c.

One of the inspections was to an Italian ice-cream shop, where the proprietor has made application for permission to register only a part of the premises, and by means of a movable partition to shut off the registered part during the hours 8 a.m. to 1 p.m. on Sundays, and thus allow him to conduct a carrying-out trade during these hours, which are forbidden by the By-laws. A report on the matter was made to the County Clerk.



COUNTY OF LANARK.

DISTRICT OF THE UPPER WARD.

REPORTS

OF THE

MEDICAL OFFICER OF HEALTH

AND OF THE

SANITARY INSPECTOR

1923.

Medical Officer of Health, - - -	County Offices, Hamilton.
Asst. Medical Officer of Health, -	} District Offices, Lanark.
Sanitary Inspector, - - -	

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STAFF.

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ALEXANDER FRASER, M.D., D.P.H.

Sanitary Inspector.

WILLIAM PATERSON.

Asst. Sanitary Inspector.

WILLIAM Y. PARK

(Certificated Meat Inspector).

Nurse Health Visitors—3.

District Hospital, Roadmeetings, Carlisle.

Physician-Superintendent, - - - Dr ALEXANDER FRASER.

Consulting Physician, - - - Dr ROBERT B. BARR.

Matron, - - - - Miss I. RAMSAY.

Meat Inspector.

JOHN JARVIE, M.R.C.V.S.

Slaughter House Superintendents—4.

COUNTY OF LANARK.

DISTRICT OF THE UPPER WARD.

(AREA, 326,803 ACRES.)

Report by the Medical Officer of Health

FOR THE YEAR 1923.

VITAL STATISTICS.

The **Population** as estimated for the year 1923, was 47,700. The population of the various parishes or registration districts is given in Table B.

The number of *inhabited houses* according to the Valuation Roll amounts to **10,109**, while there are **110** uninhabited houses, the latter being 8 more than in the previous year. The uninhabited houses consist mainly of houses in course of erection.

Statistical Tables.—Table A shows the birth and death-rates per thousand of the population and the infantile deaths per thousand births for the decennial periods 1891-1900, 1901-10, and 1911-20, as well as those for the years 1921-23.

Table B shows the population, births, and deaths for the year in each parish and registration district, with the deaths classified according to cause.

Table C shows the deaths classified according to cause and age periods.

The **Births** registered in the district, after correction for transfers, numbered **1,144**—males, 560 ; females, 584,—giving a birth-rate of **23.9** per 1,000 of the population.

The number of *illegitimate births* registered in the district, after correction for transfers, numbered **77**—males, 38 ; females, 39,—giving an illegitimate birth-rate of **6.7** per 100 births.

The **Deaths** registered in the district, after correction for transfers, amounted to **512**, giving a death-rate of **10.7** per 1000 of the population.

The deaths of infants under 1 year numbered **74**, giving an infantile mortality rate of **64.6** per 1000 births—one of the lowest rates yet recorded.

The number of births exceeded the number of deaths by 632, constituting the natural increase of the population.

Infectious Diseases.—The deaths due to notifiable infectious diseases numbered 80, as compared with 108 during the previous year, and were made up as follows:—Diphtheria, 4; Scarlet Fever, 3; Enteric Fever, 1; Tuberculosis, 44 (Pulmonary, 33; Meningeal, 4; Abdominal, 3; and Other Forms, 4); Pneumonia, 28.

The deaths due to non-notifiable diseases numbered 23—Whooping-Cough, 12; Diarrhoea (under 2 years) 7; Measles, 4.

Respiratory Diseases.—During the year the deaths, excluding Pulmonary Tuberculosis, numbered 63, and the following statistics show the deaths and death-rates per thousand of the population for the past four years.

Year.	Pneumonia		Bronchitis		Influenza		Other Respiratory Diseases	
	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate	Deaths	Death-rate
1920.	34	.75	22	.48	5	.11	13	.28
1921.	33	.71	27	.58	4	.09	10	.21
1922.	54	1.15	30	.64	20	.43	19	.41
1923.	28	.58	19	.39	2	.04	14	.29

Malignant Diseases.—The deaths falling under this heading numbered 54—males, 28; females, 26, thus showing an increase in the deaths from malignant disease when compared with the figure of 32 for the previous year. The age periods at death will be found in Table C.

The type of disease according to certified cause of death was Carcinoma or Cancer, 42; Sarcoma, 3; Epithelioma, 2; others, 7. The location of the disease was as follows: some portion of the gastro-intestinal tract, 29 cases; the genito-urinary tract, 7; liver, 3; mediastinum, 3; breast, 5; lip, 2; tongue and jaw, 1; larynx, 1; iliac bone, 1; eye, 1; lung, 1.

TABLE B.—UPPER WARD.—Year 1923.—Population, Births, and Deaths in each Registration District, with Deaths classified according to cause.

REGISTRATION DISTRICTS.	ESTIMATED POPULATION 1923.	BIRTHS.	Enteric Fever.	Measles.	Scarlet Fever.	Whooping-Cough.	Diphtheria.	Influenza.	Erysipelas.	Other Septic Diseases.	Cerebro-Spinal Fever	Pulmonary Tuberculosis.	Meningeal Tub.	Abdominal Tub.	Other Tuberculosis.	Malignant Diseases.	Rheumatic Fever.	Meningitis (simple).	Cerebral Hemorrhage.	Convulsions.	Other Nervous Diseases.	Organic Heart Disease.	Bronchitis.	Pneumonia.	Laryngitis.	Other Respiratory Diseases.	Diarrhoea.	Appendicitis and Typhlitis.	All Liver Diseases (not malignant).	Other Digestive Diseases.	Nephritis and Bright's Disease.	Puerperal Sepsis.	Dis. and Acc. of Pregnancy, &c.	Congenital Malformations.	Premature Birth.	Atrophy, Debility, and Marasmus.	Atelectasis.	Injury at Birth.	Suffocation—Overlying.	Syphilis.	Rickets.	Violence.	Suicide.	Other Defined Diseases.	Ill-defined Diseases.	Total Deaths.
Biggar.	730	10	1	1	1	2	1	2	...	2	10		
Carlisle.	10,700	266	2	2	1	...	6	1	1	...	15	11	2	1	7	5	4	...	5	1	3	1	...	2	...	1	1	1	1	...	1	1	1	26	...	103	
Carmichael	1,660	30	1	2	1	1	...	1	...	1	...	3	2	1	1	1	2	...	2	...	19	
Carnwath.	6,670	35	...	1	2	1	2	1	10	1	1	1	...	2	1	1	1	4	...	29			
Forth.		65	5	2	1	5	1	2	2	...	4	...	22					
Haywood.		107	...	3	...	1	2	1	5	2	1	1	2	2	3	1	...	3	...	27		
Carstairs.	2,000	47	1	4	8	1	1	...	1	...	1	1	5	...	22				
Covington, &c..	420	6	1	1	3	1	6			
Crawford.	1,050	14	2	1	2	1	...	1	...	7				
Leadhills.	750	19	2	2	1	...	1	...	1	1	1	2	...	10				
Crawfordjohn.	680	7	1	1	1	...	1	1	5	...	10				
Conlter.	350	8	2	1	3	1	8				
Dolphinton.	250	4	1	2	1	4			
Douglas.	3,400	67	2	1	...	1	1	2	1	1	2	2	1	2	2	1	1	...	6	...	26		
Dunsyre	170	6			
Lamington, &c..	300	6	1	2	...	3				
Lanark.	3,000	49	1	8	1	1	1	5	...	1	2	2	1	1	1	4	1	9	...	39			
Lesmahagow.	13,550	238	2	2	2	1	9	...	2	9	...	2	15	3	10	...	5	1	2	1	3	2	...	1	...	3	4	1	...	15	...	95	
Kirkfieldbank.		38	3	1	...	1	3	2	1	2	...	1	1	...	1	1	...	2	1	4	...	24				
Coalburn.		90	1	1	1	1	...	2	4	...	3	...	1	1	1	3	1	1	...	3	...	24		
Libberton.	540	10	1	1	1	1	1	...	5			
Pettunain.	270	6	1	1	1	1	...	4				
Symington.	560	6	1	4	...	5				
Walston.	230	4	1	2	1	...	4				
Wiston, &c..	420	6	1	3	1	1	...	6			
Totals.	47,700	1,144	1	4	3	12	4	2	...	3	...	33	4	3	4	54	2	5	37	7	6	70	19	28	1	14	7	5	4	13	9	1	4	4	17	13	1	1	14	2	101	...	512	

TABLE C.—UPPER WARD.—Year 1923.—Deaths classified according to Cause and Age Periods.

CAUSE OF DEATH.	Registered in District.	Transferred from other Districts.	Transferred to other Districts.	Nett Deaths.	NETT DEATHS AT DIFFERENT AGE PERIODS.																	Rate per 1000 Popula- tion.
					Weeks.				Months.					Years.								
					1	2	3	4	1	3	6	9	12	1	5	10	15	25	35	45	55		65	75
Enteric Fever, . . .	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	020	
Measles, . . .	4	...	...	4	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	083	
Scarlet Fever . . .	2	1	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	062	
Whooping Cough, . .	12	...	...	12	...	...	...	...	...	...	5	2	2	...	...	...	...	...	...	...	251	
Diphtheria, . . .	4	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	083	
Influenza, . . .	2	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	041	
Erysipelas, . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	062	
Other Septic Diseases, .	1	2	...	3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal Fever, .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	691	
Pulmonary Tuberculosis, .	36	2	5	33	...	...	...	...	...	...	...	...	...	1	2	2	9	4	7	2	3	083
Meningeal " . . .	4	...	...	4	...	...	...	...	...	...	...	...	...	...	1	1	...	...	2	...	...	062
Abdominal " . . .	2	1	...	3	...	...	...	...	...	...	...	1	...	...	1	...	1	...	...	...	...	083
Other Forms " . . .	4	...	...	4	...	...	...	...	...	...	...	...	...	...	1	...	1	2	6	4	18	1,132
Malignant Diseases, . .	46	9	1	54	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	041
Rheumatic Fever, . . .	2	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	104
Meningitis (Simple) . .	5	...	...	5	...	...	...	...	...	...	...	...	...	1	1	1	2	...	...	...	...	775
Cerebral Haemorrhage, .	37	1	1	37	...	...	...	...	...	...	...	...	...	...	...	...	...	2	7	18	10	146
Convulsions, . . .	7	...	...	7	...	2	1	...	...	...	2	...	...	1	...	...	...	...	...	...	...	125
Other Nervous Diseases, .	6	...	...	6	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	3	1,467
Organic Heart Diseases, .	69	3	2	70	...	2	1	...	...	...	...	...	...	1	2	...	1	2	5	14	23	398
Bronchitis, . . .	19	...	...	19	...	...	...	...	...	...	...	1	...	...	2	...	...	...	2	4	7	584
Pneumonia, . . .	24	4	...	28	...	...	...	...	...	1	4	3	...	...	5	3	...	2	2	1	...	020
Laryngitis, . . .	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	202
Other Respiratory Diseases, .	14	...	...	14	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	1	3	146
Diarrhoea (under 2 years), .	7	...	...	7	...	...	...	...	...	...	3	...	...	...	3	...	...	...	...	...	...	104
Appendicitis and Typhlitis, .	1	4	...	5	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...	1	...	083
All Liver Diseases (normal), .	4	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	272
Other Digestive Diseases, .	13	2	2	13	...	...	...	...	...	...	1	...	...	...	2	1	...	2	...	1	2	186
Nephritis and Bright's Disease, .	9	1	1	9	...	...	...	...	...	...	...	...	...	...	...	...	1	2	2	2	2	020
Puerperal Sepsis, . . .	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	083
Dis. and Acc. of Pregnancy, &c.	...	4	...	4	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	...	083
Congenital Malformations, .	2	...	...	4	...	...	2	...	...	1	1	...	...	...	...	...	...	...	...	...	...	356
Premature Birth, . . .	16	1	...	17	13	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	272
Atrophy, Debility, &c, . .	11	2	...	13	6	1	1	1	...	3	...	...	...	...	1	...	...	...	...	...	...	020
Atelectasis, . . .	1	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	020
Injury at Birth, . . .	1	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation—Overlying, . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis, . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets, . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Violence, . . .	11	4	1	14	...	...	...	...	...	...	...	...	...	...	1	1	3	2	2	1	2	292
Suicide, . . .	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	041
Other Defined Diseases, . .	92	13	4	101	...	...	...	...	...	...	...	1	...	...	1	1	...	2	4	15	12	2,117
Ill Defined Diseases, . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total, . . .	470	69	17	512	25	6	5	2	...	5	18	7	6	...	36	14	11	22	17	33	40	10,700

TABLE A.—BIRTH-RATES AND DEATH-RATES PER 1000 OF THE POPULATION. INFANTILE DEATHS PER 1000 BIRTHS.

Year. Average.	Births.	Birth-rate	Net Deaths.	Death-rate	Infants under 1 year. Deaths	Death-rate
1891-1900	1222	31.6	606	15.6	116	95.5
Average. 1901-10	1209	28.9	552	13.2	104	86.5
Average. 1911-20	1143	25.9	561	12.73	91	80.23
1921	1225	26.23	541	11.58	76	62.04
1922	1097	23.40	584	12.45	101	92.06
1923	1144	23.9	512	10.7	74	64.6

PREVALENCE OF INFECTIOUS DISEASE.

The diseases included under this heading are classified in relation to notification, and are divided into two groups. Group I. includes diseases which are compulsorily notifiable (*a*) under the Notification Act, (*b*) by adoption under the Notification Act, and (*c*) by order of the Scottish Board of Health, and Group II. not compulsorily notifiable diseases. The diseases included in these groups are as follows:—

GROUP I.

(a)	(b)	(c)
	<i>August, 1906.</i>	<i>1st August, 1912.</i>
Small-pox.	Cerebro-spinal Meningitis.	Pulmonary Tuberculosis.
Diphtheria.	<i>24th October, 1921.</i>	<i>1st July, 1914.</i>
Scarlet Fever.	Ophthalmia Neonatorum.	All forms of Tuberculosis.
Typhus Fever.	Acute Poliomyelitis.	<i>1st August, 1919.</i>
Enteric Fever.	Tetanus.	Malaria.
Puerperal Fever.	Anthrax.	Dysentery.
Erysipelas.	Glanders.	Trench Fever.
	Actinomycosis.	Acute Primary Pneumonia.
		Acute Influenzal „
		Chickenpox (1923).

GROUP II.

Measles.	Chickenpox.	Ringworm.
German Measles.	Mumps.	Scabies.
Whooping-Cough.		Encephalitis Lethargica.

The prevalence of notifiable disease was less than in the previous year. As usual, the two most prevalent diseases were Scarlet Fever and Diphtheria. The total number of cases of both Scarlet Fever and Diphtheria showed a definite decrease, being 265 and 46 respectively, while last year's figures were 403

and 72. The total number of cases of infectious disease notified during the year was 527 in comparison with last year's figure of 659. Table D shows the number of cases of notifiable infectious disease occurring in each Parish, and in the following paragraphs the prevalence and distribution of each disease is summarised.

All outbreaks were carefully inquired into, and the usual recognised methods of investigation, isolation, and disinfection were carried out to control the spread of the disease. Where the patient was in any way connected with a dairy farm, special precautions were taken to discover the source of infection, and in all cases prompt removal to Hospital was obtained. In the case of Diphtheria, throat swabs were taken for bacteriological examination from all members of the household.

TABLE D.—Number of Cases of Infectious Sickness recognised in each Parish during 1923.

PARISH.	Scarlet Fever.	Diphtheria.	Enteric Fever	Puerperal Fever	Cerebro Spinal Fever	Encephalitis Lethargica.	Erysipelas.	Ophthalmia Neonatorum.	Acute Primary Pneumonia	Influenzal Pneumonia.	Malaria.	Dysentery.	Chicken-pox.	Pulmonary Tuberculosis	Non-Pulmonary Tuberculosis.
Biggar, -	6	....	....	....	....	....	....	....	....	....	....	....	1	1	....
Carluke, -	38	7	....	1	....	....	8	1	8	....	....	....	15	6	2
Carmichael, -	5	1	....	....	....	....	....	....	1	....	....	....	....	....	....
Carnwath, -	25	8	1	....	....	....	....	....	2	....	....	....	10	10	4
Carstairs, -	21	5	....	....	....	....	....	....	....	....	1	....	2	2	1
Covington, -	....	....	....	....	....	....	1	....	....	....	....	....	....	1	....
Crawford, -	8	....	....	....	....	....	....	....	....	....	....	....	....	3	3
Crawfordjohn	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Coulter, -	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Dolphinton, -	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1
Douglas, -	13	2	....	....	....	....	....	....	....	....	....	....	....	3	1
Dunsyre, -	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Lamington, -	....	1	....	....	....	....	....	....	....	....	....	....	....	1	....
Lanark, -	9	11	....	....	....	1	9	....	7	....	....	....	1	19	7
Lesmahagow, -	138	11	1	....	....	....	11	1	39	....	....	1	10	5	11
Libberton, -	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Pettinain, -	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....
Symington, -	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Walston, -	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Wiston, -	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
	265	46	2	1	....	1	29	2	57	....	1	1	40	52	30

Smallpox.

No case occurred during the year, the last case notified being in the year 1904.

Vaccination (Scotland) Act, 1907.—The returns received from the registrars showing the number of statutory declarations of conscientious objection to vaccination are tabulated here according to registration district for the years 1920 to 1923. Figures for previous years will be found in the Summary Report 1914-19.

	1920.	1921.	1922.	1923.
Biggar, - -	1	8	4	1
Carluke, - -	94	99	110	103
Carmichael, -	17	21	19	21
Carnwath, -	12	11	19	8
Forth, - -	27	22	25	29
Haywood, -	15	15	18	32
Carstairs, - -	9	4	3	15
Covington, -	.....	1	1	.....
Crawford, - -	.....	4	5	3
Leadhills, - -	2	2	3	7
Crawfordjohn, -	1	3	5	4
Coulter, - -	.....	1	.....	.....
Dolphinton -	.....	.....	1	.....
Douglas, - -	25	24	33	23
Dunsyre, - -	.....	.....	.....	.....
Lamington, -	.....	1	1	.....
Lanark, - -	39	28	30	6
Lesmahagow, -	110	113	7	59
Kirkfieldbank, -	7	7	92	4
Coalburn, - -	.....	22	36	24
Libberton, -	.....	.....	.....	2
Pettinain, - -	.....	.....	.....	.....
Symington, -	1	.....	4	1
Walston, - -	.....	.....	.....	3
Wiston, - -	.....	.....	.....	1
	<hr/> 360 <hr/>	<hr/> 387 <hr/>	<hr/> 416 <hr/>	<hr/> 346 <hr/>

The proportion of declarations for the whole district was 30.2 per cent. of the total births.

Diphtheria.

The following tabular statement shows the prevalence of this disease since 1892, as well as the number of deaths, and the respective rates.

Year. Average		Cases.	Deaths.	Deaths per 100 Cases.	Cases per 1000 Population.	Deaths per 10,000 Population.
1892-95, Average	—	78	14	17.9	2.0	3.7
1896-1900, Average	—	89	6	6.7	2.2	1.4
1901-05, Average	—	66	7	10.6	1.6	1.6
1906-10, Average	—	156	7	4.4	3.6	1.7
1911-15, Average	—	95	8	8.4	2.1	1.8
1916-20, Average	—	82	7	8.5	1.8	1.5
1921, —	—	89	4	4.4	1.9	0.9
1922, —	—	72	7	9.7	1.5	1.5
1923, —	—	46	4	8.7	0.9	0.8

The number of deaths from the disease amounted to 4, in comparison with last year's figure of 7, while the total number of cases showed a decrease of 26, in comparison with the number of cases notified in the year 1922.

Of the 46 cases notified, 37 or 80.4% were removed to hospital. The monthly distribution of cases throughout the year was as follows :—

Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
7	6	12	5	2	1	—	1	1	3	3	5

The prevalence of the disease was greatest during the first quarter of the year.

The age incidence of the cases and deaths was as follows :—

	Ages	1	1-5	5-10	10-15	15-25	25-65
Cases	10	13	10	8	5
Deaths	3	.....	.....	.....	1

Table D shows the number of cases occurring in each Parish from which it will be seen that the greatest number of cases of Diphtheria were notified in the Parishes of Lesmahagow and Lanark, 11 cases being notified in each.

These cases were distributed as follows :—

Parish of Lanark—New Lanark, 8; Smyllum, 1; Kingson's Knowe, 1; Nemphlar, 1.—Total, 11.

Parish of Lesmahagow—Coalburn, 6; Turfholm, 2; Lesmahagow, 1; Leadbetter's Row, 1; Annfield, 1.—Total, 11.

DAIRY FARMS.—Only in two instances did the disease occur at dairy farms. The first case was removed immediately to hospital, while, in the second instance, the patient was an elderly man, paralysed in both legs, who had been confined to bed for the previous six months. The disease was of a mild form. The milk supply was stopped voluntarily and arrangements made to churn the milk. The supply was resumed after negative swabs had been obtained. Swabs taken from the rest of the household all proved negative.

DIPHTHERIA ANTITOXIN.—As mentioned in last year's report, arrangements were made whereby an emergency dose of antitoxin for the use of medical practitioners was available by applying at the various local police offices. This was taken advantage of in two instances. It is again urged that when diphtheria is suspected antitoxin should be at once administered by the medical practitioner. Of the 37 cases of diphtheria admitted to Lanark Burgh Hospital during the year, 10 cases had serum prior to admission, whereas only 1 case out of 58 admissions received serum before admission during the previous year. **Three deaths occurred in hospital all within 24 hours of admission. None of these cases had received serum prior to admission.**

Scarlet Fever.

The following tabular statement shows the prevalence of this disease since 1892, as well as the number of deaths, and the respective rates.

Year.	Cases.	Deaths.	Deaths per 100 Cases	Cases per 1000 Population.	Deaths per 10,000 Population.
Average 1892-95.	299	7	2.3	7.88	1.77
Average 1896-1900.	326	9	2.7	8.27	2.28
Average 1901-05.	187	4	2.1	4.56	0.97
Average 1906-10.	235	3	1.2	5.5	0.70
Average 1911-15.	264	5	1.9	6.03	1.14
Average 1916-20.	156	2	1.5	3.4	0.5
1921.	263	1	0.3	5.6	0.2
1922.	403	11	2.7	8.6	2.3
1923.	265	3	1.1	5.5	0.6

The monthly distribution of the cases was as follows :—

Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
21	23	26	16	14	18	12	10	8	27	30	60

From these figures it will be seen that the disease was most prevalent during the last quarter of the year. There has been a definite decrease during the year of the cases notified—265 in comparison with 403 cases during the previous year.

The age incidence of the cases and deaths was as follows :—

Cases	Age	1	1-5	5-10	10-15	15-25	25-45	45-65
Deaths		2	67	111	51	26	7	1
		3	.....	.....	.....	.....	.....

Table D shows the number of cases occurring in each Parish, and it will be noted that the disease was prevalent in the more populous areas.

The greatest number of cases occurred in the Parish of Lesmahagow, and were distributed as follows :—Lesmahagow, 54 ; Coalburn, 21 ; Kirkmuirhill, 20 ; Draffan, 15 ; Kirkfieldbank, 9 ; Blackwood, 5 ; Dillarburn, 5 ; Brocketsbrae, 6 ; Auchenheath, 2 ; Auldtonhill, 1.

The type of disease was mild and this accounted for secondary cases in many instances, the original case only being discovered after the development of the secondary.

DAIRY FARMS.—In 8 instances the disease occurred at a dairy farm. Immediate removal of the cases to hospital was obtained in each instance, and after the usual medical examination of the inmates, and disinfection of the premises, the milk supply was continued.

RETURN CASES.—During the prevalence of Scarlet Fever, especially when the disease is of a mild type, difficulty often arises in stating when a case is a return one or not owing to the possibility of contact with unrecognised cases. After careful investigation 4 cases were presumed to be return cases, being 2 per cent. of the admissions to hospital.

Enteric Fever.

The following tabular statement shows the prevalence of this disease since 1892, as well as the number of deaths, and the respective rates.

This Table shews that during the period of County administration the disease has practically disappeared. In 1921 there was one case notified; in 1922 there were no cases recognised at all; and in the year now reported on there were three cases, one of which was only brought to our notice after a post-mortem examination had been carried out. The other two cases made good recoveries.

Year. Average	Cases.	Deaths.	Deaths per 100 Cases.	Cases per 1000 Population.	Deaths per 10,000 Population.
1892-95.	— 46	6	12.4	1.2	1.5
Average 1896-1900.	— 27	5	17.6	0.6	1.2
Average 1901-05.	— 20	4	18.8	0.4	0.9
Average 1906-10	— 13	2	17.4	0.3	0.5
Average 1911-15.	— 6	1	23.3	0.13	0.3
Average 1916-20	— 3	0.2	5.9	0.01	0.02
1921.	— 1	.....	.....	.02	.....
1922.	— .....	.....	.....	.....	.....
1923.	— 3	1	16.6	.06	.02

The three cases are summarised as follows:—

Case No. 1.—This occurred in the parish of Carnwath. The patient had complained of headache for about a fortnight, but as she had at various times suffered from indigestion this illness was at first supposed to be one of these attacks. Later, a degree of pyrexia developed and diarrhoea was present followed by the appearance of coarse “rose” spots. The patient was admitted to County Hospital, Motherwell, and made a good recovery.

Bacteriological Examination.—Blood culture—sterile; Faeces—negative; Urine—negative. Widal Reaction—B. Typhosus—negative; B. Para-typhosus A—Negative; B. Para-typhosus B—positive—1-100.

Exhaustive enquiries were made in the hope of tracing the source of infection but no history of any case of suspicious illness was obtained. Samples of the water supply were examined bacteriologically and were returned as negative. No further cases occurred.

Case No. 2.—This case occurred in the parish of Lesmahagow. The patient had complained of headache and pains in the legs and back for about a fortnight. Sickness and vomiting and slight diarrhoea had also been present. A degree of pyrexia had developed and “rose” spots were said to have been present. The patient was admitted to the County Hospital, Motherwell, and made a good recovery.

Bacteriological Examination.—Blood culture—sterile; Faeces—

negative. Widal Reaction—B. Typhosus—positive; B. Paratyphosus A—negative; B. Paratyphosus B—negative.

Exhaustive enquiries were also made in this case as to the source of infection. No cases of suspicious illness were discovered in the locality and the rest of the household were in good health.

Case No. 3. This case came to light through the registrar's return of deaths, the death having been certified as due to Enteric Fever, after a post-mortem examination. This case had been admitted to the Western Infirmary, Glasgow, suffering from appendicitis. She was operated on for that condition, but died. On post-mortem examination evidences of Enteric Fever were said to be present and death was certified as due to such.

No cases of Enteric Fever or of any suspicious illness were known of in the district in which she lived. All the members of her household were in good health.

Cerebro-spinal Fever.

No cases of this disease were notified during the year.

Erysipelas.

29 cases were notified during the year and no deaths from the disease were registered. 2 of the cases notified were treated in hospital. The number of notifications during the year show an increase of 5, compared with the previous year.

Pneumonia.

The notifications of acute primary pneumonia numbered 57, while no cases of influenzal pneumonia were notified. Compared with the previous year there is a decrease of 5 cases. None of the cases were removed to hospital. The death-rate and the number of deaths occurring from the disease will be found under the heading respiratory diseases.

Dysentery.

1 case was notified. This was a child of eight years. The following report was received from the County Laboratory: "Specimen of faeces M. M'K.—culture: very slight growth of a bacillus of the Flexner type." The case presented few symptoms—a slight degree of pyrexia and diarrhoea. The illness was of extremely short duration, and at the time of visit the child was well and going about. No source of infection could be discovered and no further cases were notified. Enquiries were directed to the presence of carriers but none were discovered.

Puerperal Fever.

1 case was notified in Carlisle parish. The case was of a mild nature and made a good recovery.

Non-Notifiable Diseases.

The sources of information available to the department regarding the prevalence of measles, whooping-cough, mumps, chickenpox, etc., are as follows:—(1) Information sent by head-masters for the purpose of certification of scholars absent on account of infectious disease; (2) application made by school authorities for closure of schools when the attendance is interfered with by epidemic prevalence; (3) information obtained by the Nurse Health Visitors in the course of their duties; and (4) the returns of deaths received from the local registrars.

Measles and whooping-cough are two of the most serious diseases of childhood. The fatality is high during the first three years of child life; indeed, the younger the child the greater the danger. For example, during the years 1920-23, fifty-four deaths occurred in the Upper Ward District, and no less than fifty-one of these occurred in children under three years of age. The following tabular statement shows the deaths and death-rates from each of these diseases since the year 1891, dealing with the annual average number of deaths for the first thirty years and for each year 1921-23:—

				MEASLES.		WHOOPIING-COUGH.	
				Deaths.	Death-rate per 10,000 Population.	Deaths.	Death-rate per 10,000 Population.
Annual Average,	1891-95,			12	3.4	21	5.6
„	„	1896-1900,		8	2.2	12	2.9
„	„	1901-05,		2	0.5	10	2.3
„	„	1906-10,		9	2.1	12	2.7
„	„	1911-15,		3	0.8	7	1.6
„	„	1916-20		6	1.3	8	1.8
1921,	-	-	-	.....	.....	17	3.6
1922,	-	-	-	8	1.7	10	2.1
1923,	-	-	-	4	0.8	12	2.5

Measles.—This disease was most prevalent in the parishes of Dolphinton and Carnwath. The 4 deaths which occurred during the year were distributed among the following registration districts:—Carnwath, 1; Haywood and Tarbrax, 3. The number of deaths shows a decrease compared with the previous year, the disease being much less prevalent.

The deaths occurred in the following age periods:—

Months.				Years.	
1-3	3-6	6-9	9-12	1.5	5-10
.....	1	.....	.....	3	.....

Whooping-Cough.—The 12 deaths which occurred during the year were distributed among the following registration districts:—Forth, 5; Carluke, 2; Lesmahagow, 2; Haywood, 1; Covington, 1; and Libberton, 1. In comparison with the previous year there is an increase of 2 in the number of deaths. 53 visits to cases were made by the Nurse Health Visitors.

The deaths occurred in the following age periods:—

Months.				Years.	
1-3	3-6	6-9	9-12	1-5	5-10
.....	5	2	2	3	.....

School Closure.

Owing to the prevalence of infectious disease in certain areas it was found necessary to make several visits to schools for the purpose of examining the scholars with a view to detecting unrecognised cases. The schools visited were as follows:—Dolphinton, Turfholm, Carstairs Junction, Blackwood, Blackwood R.C. School, Stablestone, Haywood, New Woolfords, Tarbrax. In some instances children were excluded from school, and all necessary steps were taken to prevent the spread of infection. During the year it was found necessary to close the school at Dolphinton on account of Measles. The school was closed from 7th February till 20th February, both dates inclusive. It was about twelve years since measles was last prevalent in the school, and practically all the school children had not had measles. The infection appeared to have been carried from West Linton, three miles distant, where measles at that time was prevalent. The last closure of this school for measles is dated 27th March to 14th April, 1911.

Anthrax.

11 outbreaks of this disease in cattle were reported during the year, being the same number as occurred last year. No cases of suspicious illness occurred amongst the persons in contact with the diseased animals.

Venereal Diseases.

During the year from the Upper Ward District 10 cases received treatment—males, 7; females, 3. Of these, 8 received outdoor treatment and 2 indoor treatment, while the total attendances numbered 109. 13 specimens were examined for Wassermann reaction and 6 other bacteriological examinations were made.

Hospitals.

The cases of infectious disease occurring in the Upper Ward are treated in the Burgh Fever Hospital, Lanark, and in the County Hospital, Motherwell.

During the year Scarlet Fever and Diphtheria were not so prevalent as in the previous year. During the last quarter of the year, however, there was again difficulty in obtaining hospital accommodation for cases of Scarlet Fever. Immediate removal of the cases was not always obtained and this accounted for many of the secondary cases.

The admissions during the year were as follows :—

	County Hospital Motherwell		Burgh Hospital Lanark
Enteric Fever,	— 2	.....	.....
Scarlet Fever,	— 32	.....	168
Diphtheria,	— 1	.....	36
Erysipelas,	— 1	.....	1
	—		—
	36		205
	=====		=====

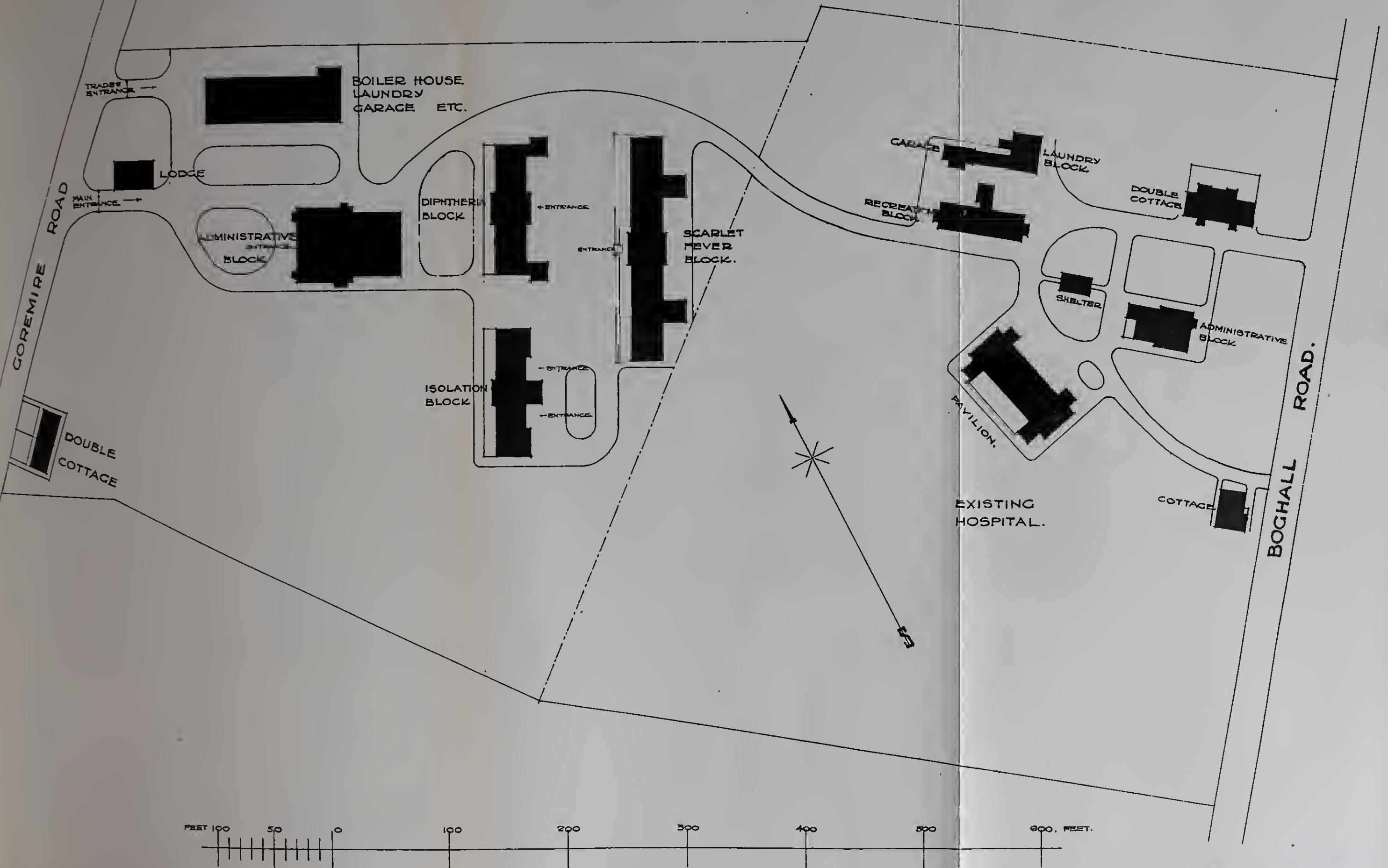
The provision of additional hospital accommodation has continued to receive careful consideration, and at the close of the year arrangements were almost concluded for the erection of one of the most up-to-date hospitals. I had the opportunity of preparing some notes on the subject which showed the requirements are not less than one bed per thousand of the population for areas such as the Upper Ward District. The present population of the district is 47,700, and during the next ten years the population will probably be increased to over 50,000. The number of cases of Scarlet Fever and Diphtheria, the two notifiable infectious diseases demanding most hospital accommodation reach some years to over 400 cases and there is an increasing demand for removal to hospital. Thus for the last few years the removals averaged from 70 to 80 per cent. of the cases notified. As the prevalence of these diseases is greatest in the autumn and winter months the number of beds required at one time has been over 60. Several other diseases also require hospital accommodation, such as Enteric Fever, Puerperal Fever, Cerebro-spinal Fever, Influenza, certain types of Pneumonia, and also a certain number of cases of Measles and Whooping-Cough which cannot be efficiently nursed at home. The instructions

to the Architect were, therefore, to prepare plans for a hospital of 40 nominal beds, with all modern conveniences and appliances. This has now been increased to 44 nominal beds, but it should be pointed out that this means adult beds, and provision can therefore be made for over 60 beds for children.

The requirements laid down by the Board and the experience of the Local Authority clearly show that there is urgent need for this new hospital. Although the Upper Ward contains a large proportion of agricultural communities, it must be remembered that the dairy industry is specially interested in having modern hospital accommodation available. If a case of acute infectious disease occurs in a family connected with a dairy farm and the milk is sent to another authority, such as Glasgow, Edinburgh, and elsewhere, the medical officer of health for that area at once requires immediate removal of the patient to hospital or the stoppage of the milk supply. In mining and other communities the housing accommodation does not permit of proper isolation at home. There is no class of the community but has an interest in hospital isolation. Even in mansion houses, where plenty accommodation for isolation is available, need is often found for removal to hospital, especially when a case of infectious disease occurs in a servant maid.

In planning, furnishing, and equipping a fever hospital two main considerations to be kept in view are the isolation of the patient and treatment on the most approved lines. Hitherto patients in the Upper Ward District have not had that. It is well known that a fever hospital instead of being the means of isolation and control may be a means of dissemination of infection. The experience of some ratepayers has been referred to in Committee, especially with regard to infection having been spread through so-called "return cases," and I am sorry to have to admit that such return cases have been too common an experience in the Upper Ward. The plans of the new hospital show that the wards are designed to secure the maximum light and air and ample floor space for the separation of the patients. Special means of isolation is provided by cubicles and small wards, thus a patient can be completely isolated from all other cases for various reasons. A child may be admitted suffering from Scarlet Fever and at the same time suffer from Measles, thus having to be dealt with in a separate cubicle. Ratepayers are compelled to part with their children and have reason to

UPPER WARD OF LANARK. PROPOSED HOSPITAL AT ROADMEETINGS, CARLUKE. BLOCK PLAN.



expect that they will receive the very best treatment that medical and nursing services can supply. Presently the Upper Ward District Committee and their officials have no control over the isolation of their patients when in hospital. There is thus not only a great need for such a hospital as is being proposed, but the methods that have been employed in past years are altogether unsuitable.

The Architects have been good enough to prepare a block plan of the proposed new infectious diseases hospital and the existing institution for treatment of tuberculosis, and this will be found inserted in this report.

Tuberculosis.

The Burghs of Lanark and Biggar being included in the Upper Ward District Tuberculosis Scheme, statistics relating to the three areas are given separately.

The provision of institutional treatment for tuberculosis was commenced in 1905, and notification was then arranged for on a voluntary basis. In the year 1907, pulmonary tuberculosis was made compulsorily notifiable in this district under the Notification Act, but was not made compulsorily notifiable throughout Scotland until 1st August, 1912. On 1st July, 1914, non-pulmonary tuberculosis was also made compulsorily notifiable throughout Scotland.

The following tabular statement shows a marked decline in the deaths from tuberculosis, but it should be pointed out that the total decline in the death-rate is not shown by these figures, as only deaths which were definitely certified as due to tuberculosis are included, whereas in the earlier years of County administration there was considerable difficulty in getting an accurate note of the number of deaths owing to the rather vague statement of the cause of death in the medical certificate.

	PULMONARY.			NON-PULMONARY.		
	Cases Notified.	Deaths Registered.	Death-rate per 10,000 Population	Cases Notified.	Deaths Registered.	Death-rate per 10,000 Population
Annual Average :						
1891-95, -	.....	45	12.0	.....	23	6.2
1896-1900, -	.....	47	11.9	.....	17	4.4
1901-05, -	.....	43	10.5	.....	20	4.9
1906-10 -	36	35	8.1	.....	15	4.4
1911-15, -	50	32	7.0	.....	13	2.8
1916-20, -	43	28	6.3	25	15	3.3
Year 1921, -	33	20	4.3	32	15	3.2
„ 1922, -	48	21	4.5	32	17	3.6
„ 1923, -	51	33	6.9	30	11	2.3

UPPER WARD.—Mortality.—The deaths from all forms of tuberculosis numbered 44, and were classified as follows:—Pulmonary, 33; Meningeal, 4; Abdominal, 3; and other forms, 4. The deaths will be found classified according to Parish in Table B.

The death-rate for all forms of the disease was .92 per 1,000 of the population. The death-rate of the various forms of the disease and also the age incidence of the deaths will be found in Table C.

Deaths in Relation to Notification.—There are still a number of cases in which medical practitioners fail to carry out their legal duties and notify punctually when the case becomes known. Some cases are not notified until death is approaching, and in others the case only becomes known when the local registrar's return of deaths is received. Of the 44 deaths registered from tuberculosis during the year, 33 were of the pulmonary form, and 11 of the non-pulmonary type. Of the 33 pulmonary deaths 24 were notified (2 at death), and of the 11 non-pulmonary deaths 5 were notified (1 notified at death), leaving a total, for both forms of the disease, of 15 deaths which were not notified.

The period elapsing between notification and death was—under 1 month, 5 cases; 1-3 months, 8; 3-6 months, 6; 6-9 months, 2; 9-12 months, 3; 1-5 years, 3; over 5 years, 2. The cases notified at death are included in the total given under 1 month.

Notifications.—The number of cases notified amounted to 82—Pulmonary, 52; Non-Pulmonary, 30. Of the pulmonary form one had been previously notified. Of the 51 new cases, 14 died, 5 left the district, and in 2 cases the diagnosis was revised, thus leaving 30 on record at the end of the year. Of the 30 non-pulmonary cases, 3 died, 1 left the district, and in 5 cases the diagnosis was revised, thus leaving 21 cases on record.

The **age incidence** of the cases notified was as follows:—

Ages —	65 &							Total.
	-1	1-5	5-15	15-25	25-45	45-65	over	
Pulmonary,	1	15	12	16	6	2	52
Meningeal,	1	.....	.....	1
Abdominal,	1	1	1	.....	2	.....	5
Other Forms,	2	10	7	4	1	.....	24
Total,	4	26	20	21	9	2	82

The **occupations** of the cases notified were classified thus:—Housewives, 19; scholars, 29; miners, 3; millworkers, 1; shopworkers, 1; farmworkers, 3; engineers, 2; factory workers, 3; dressmaker, 1; student, 1; railwayman, 1; navvy, 1; surfaceman, 1; no occupation or none stated, 16.

Duration of Illness.—The duration of illness of the new cases notified during the year, according to patient's own estimate at the time of notification, was as follows:—

	Months.								Over 2 yrs.	Tl.
	-1	1-2	2-3	3-6	6-9	9-12	12-18	18-24		
Pulmonary,	3	2	7	19	7	—	5	—	8	51
Non-Pulmonary,	2	3	1	2	10	1	1	1	9	30

Total Cases on Record.—The total cases on record as shown in the following statement amounted to 122—Pulmonary, 77; and Non-Pulmonary, 45.

Changes during 1923.

	Cases in District 1-1-23	New Cases.	Total on Record.	Left District.	Died.	Off List ^a	Cases in District 31-12-23.
Pulmonary,	96	51	147	17	25	28	77
Non-Pulmonary,	61	30	91	7	6	33	45

^a Disease arrested or diagnosis revised.

The cases receiving **domiciliary treatment** numbered 11.

The cases receiving **institutional treatment** are dealt with under the heading "Sanatoria."

BURGH OF LANARK.—During the year there were 5 deaths from tuberculosis—Pulmonary, 4; Meningeal, 1.

The **notifications** received numbered 5. The notifications according to the form of the disease were as follows:—Pulmonary, 2; Non-pulmonary, 3,

The **occupations** of the cases notified were classified thus:—Scholars, 1; housewives, 2; and none stated, 2.

The **age incidence** of the cases notified was as follows:—

	1-5	5-15	15-25	25-45	46-65	65 & over.	Total.
Pulmonary,	—	—	—	2	—	—	2
Non-Pulmonary,	—	1	1	—	1	—	3

Institutional Treatment.—6 cases—3 Pulmonary and 3 Non-Pulmonary—received treatment in the District Sanatorium, Roadmeetings.

Domiciliary Treatment.—No cases received treatment.

BURGH OF BIGGAR.—During the year 3 deaths were registered from tuberculosis—Pulmonary, 1; Abdominal, 1; and other forms, 1.

3 cases were notified during the year—Pulmonary, 1; Non-Pulmonary, 2.

The age incidence of the cases notified was as follows:—

Age,	1-5	5-15	15-25	25-45	45-65	65 & over	Total.
Pulmonary,	—	—	—	1	—	—	1
Non-Pulmonary,	—	—	1	—	1	—	2

Institutional Treatment.—No cases received treatment during the year.

Domiciliary Treatment.—1 case received treatment.

Sanatoria.

DISTRICT SANATORIUM, ROADMEETINGS.

The District Hospital at Roadmeetings is reserved for the treatment of tuberculosis. During the year 40 cases were admitted—34 from the Upper Ward and 6 from the Burgh of Lanark.

Patients Treated.—14 Pulmonary and 8 Non-Pulmonary cases were in residence at the beginning of the year, and during the course of the year 29 pulmonary and 11 non-pulmonary cases were admitted, making the total number of patients under treatment during the year, 62.

During the year 28 pulmonary and 14 non-pulmonary cases were discharged and 8 pulmonary cases and 1 non-pulmonary case died, leaving 7 pulmonary and 4 non-pulmonary cases under treatment at the close of the year.

In 2 pulmonary and 2 non-pulmonary cases discharged the diagnosis was revised, these cases being found to be non-tubercular.

Place of Residence.—The parishes of residence of the cases discharged were as follows:—Carnwath, 12; Carluke, 7; Lesmahagow, 6; Douglas, 4; Carmichael, 2; Lanark, 6; Crawford, 2; Carstairs, 1; and the Burgh of Lanark, 2.

Age and Sex.—The cases discharged are shown in the following table classified according to age and sex, and according to age groups for both sexes. In each age group the number of pulmonary, non-pulmonary, and non-tuberculosis cases are shown.

Age Periods.	Males.	Females.	Both Sexes.	Age Groups	Pulmonary	Non-Pulmonary.	Non Tuber.	Total.
– 5	3	1	4	Pre-school age.	2	2	–	4
–10	4	2	6	School Age.	4	4	2	10
–15	1	3	4					
–20	1	7	8	Adolescence.	8	6	–	14
–25	3	3	6					
–30	1	2	3					
–35	3	3	6	Early Maturity.	11	–	2	13
–40	1	–	1					
–45	2	1	3					
–50	1	–	1	Late Maturity.	1	–	–	1
<hr/>								
	20	22	42		26	12	4	42
<hr/>								

HISTORY OF PULMONARY CASES DISCHARGED.

Duration of Illness.—The duration of illness on admission, stated in monthly periods, was as follows:—

Months:							
1–3	3–6	6–12	12–18	18–24	Over 24	Total.	
4	9	4	3	2	6	28	

Earliest Manifestations.—From the histories of illness taken on admission the earliest signs or symptoms indicative of a departure from normal health were: Cough, 14; pneumonia, 5; influenza, 4; loss of weight, 2; bronchitis, 1; abdominal pain, 1; loss of appetite, 1; total, 28.

General Results.—The general condition on discharge may be given as follows:—

Very much improved, 19; improved, 5; unchanged, 4.

As is usually the case, the patients in the early stage of the disease showed the greatest degree of improvement, though many in whom the lesion was quite marked exhibited, under suitable conditions and care, very evident improvement.

In this category one case may be mentioned as an example. A girl, aet. 18, was admitted with a history of illness of 9 months' duration. Marked consolidation of right apex was present with night sweats, cough and spit. On examination of spit many tubercle bacilli were present. Weight on admission was 5 st. 6 lbs., and the temperature swung between subnormal and 103 deg. F. The spit was very purulent and an autogenous vaccine was prepared from it. Under this treatment an improvement in her condition was soon noticeable. Before discharge her weight had increased to 7 st. 11 lbs. Cough had practically gone and very little spit was present. The spit was negative on examination for some considerable time before discharge. On discharge cough and spit were absent. At the present time the general condition of the patient continues good. There is no cough or spit and she is able to go about and enjoy life quietly.

In two instances the diagnosis was revised, 1 case being whooping cough and the other being one of malignant disease.

HISTORY OF NON-PULMONARY CASES DISCHARGED.

The cases discharged during the year numbered 14. These may be classified as follows: Abdominal, 3; Cervical adenitis, 5; Osteitis, 3; Lupus, 1; Non-tuberculous, 2; Total, 14.

Duration of Illness.—The duration of illness on admission, stated in monthly periods, was as follows:—

Months:

1-3	3-6	6-12	12-18	18-24	24 and over.	Total.
2	2	1	2	2	5	14

Abdominal Tuberculosis.—3 cases. 2 of the cases were children aged 3 and 8 years respectively, while the third was an adolescent aged 20. The two children were discharged with the disease arrested and their general condition very much improved. The disease appeared to be arrested and there was definite improvement in the condition of the third case. During residence in sanatorium ascitis developed in this case. The abdomen was drained by a median incision at the County Hospital, Motherwell.

On discharge from sanatorium, the abdomen appeared normal and wound was healed. At the present time this patient is following his occupation as farm labourer and is in excellent general condition, feeling quite fit for his work and able to do a 20-mile walk without fatigue.

Cervical Adenitis.—5 cases. The ages of these cases were 4, 13, 15, 16, 17 years respectively. On discharge all cases were very much improved. In 3 instances glands were broken down and discharging. One case was operated on in County Hospital, Motherwell, and on discharge from sanatorium all wounds were healed and dry.

Osteitis.—3 cases (1 spine, 1 femur, 1 sacrum). The general condition of these cases on discharge from hospital was very much improved. In the case of sacral disease—a boy of 15 years—there was a history of confinement to bed for 16 weeks on account of pain in the right iliac fossa, and for 2 months previous to that there had been complaint of stiffness of the right leg. On admission emaciation was marked, but there was no complaint of pain. The right thigh was flexed almost to a right angle and the muscles very much atrophied. There was no pain on movement of the hip joint. Shortly after admission, pain and tenderness developed in the right iliac fossa, accompanied by elevation of temperature. He was removed to County Hospital, Motherwell. The symptoms subsided and on X-ray examination a mass was seen in the right iliac fossa, the origin apparently being the sacrum. On subsidence of the acute symptoms the patient was transferred back to the District Sanatorium. Massage of the atrophied muscles was commenced and afterwards the leg was stretched by means of weights. There was no recurrence of any acute symptoms. The patient was discharged in excellent general condition and able to go about freely without the aid of crutches. His weight on admission was 5 st. 8 lbs., and on dismissal 8 st. 3½ lbs. The patient has continued to keep fit and is at present working at a pit-head.

In the case of disease of the femur, the patient had been confined to bed for 3 years in England. On admission he had been brought to his home in the Upper Ward. Many sinuses were present in the upper part of the left thigh and were discharging. An autogenous vaccine was prepared and after treatment gradual improvement took place. On dismissal patient was

able to walk with the aid of a crutch and experienced no fatigue walking a distance of 2-3 miles. At the present time the patient is in Germany.

In the case of vertebral disease, the patient was a child aged 7 years. The condition appeared to be fixed, and on discharge the general condition of the patient was very much improved.

Lupus.—1 case. The disease in this case affected the upper lip and nostrils. Treatment was carried out at the County Hospital, Motherwell, and later at the District Sanatorium. On discharge, the affected part had cicatrised and was quite dry.

Non-Tubercular.—In regard to the two cases in which the diagnosis of tuberculosis was revised, 1 was a case of haemophilia, the other suffering from a septic bursa of the foot.

OTHER INSTITUTIONS.

In addition to the cases treated at the District Sanatorium, cases were treated in other institutions in the County, viz:—County Hospital, Motherwell, 9; Hairmyres Colony, 2; and the County Sanatorium, Stonehouse, 3.

Bovine Tuberculosis.

The prevalence of tuberculosis of the udder among dairy stock is detailed in the following Table, which shows the work done in the Upper Ward during the year. Samples of milk were drawn from all udders which upon examination showed conditions suspicious of tuberculosis. 26 samples of milk were taken in this way and sent to the County Laboratory for examination, when 4 were proved to be positive.

In all positive cases certificates were granted by the County Veterinary Surgeon stating that the animal suffered from tuberculosis of the udder. The usual notice was sent to the owner by the Medical Officer of Health directing attention to the requirements of Section 5 of the Milk and Dairies (Amendment) Act, 1922, suggesting, at the same time, that the animal should be sent for slaughter. The owner was requested to communicate with the Public Health Department stating as to how and when it was intended to dispose of the animal. In each case [the animal was slaughtered.

Cows with abnormal conditions of the udder other than tuberculosis are also recorded, and the results are as shown in the following table:—

YEAR 1923.—VETERINARY INSPECTION OF DAIRY HERDS.

PARISH.	Herd.	Cows.	Suspected Tubercle.						Cows with Abnormal Condition of Udder.				
			Samples of Milk.	Smear.		Biological.		Suspected Tubercle.	Atrophy.	Mammitis.	Induration N.T.	Eruption on Teats.	Total.
				+	—	+	—						
Biggar	27	480	2	1	1	2	.....	2	19	.....	5	5	31
Carluke	60	1035	4	.....	4	1	3	5	25	5	4	2	41
Carmichael	18	353	1	.....	1	.....	1	1	11	.....	2	.....	14
Carnwath	98	1839	6	.....	6	.....	6	6	47	2	9	.....	64
Carstairs	9	295	.....	.....	.....	.....	.....	.....	6	.....	5	.....	11
Cov'gt'n,&c.	19	307	1	.....	1	.....	1	1	17	2	6	1	27
Crawford	29	99	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Crawfordj'n	27	411	.....	.....	.....	.....	.....	.....	6	4	2	.....	12
Coulter	17	100	.....	.....	.....	.....	.....	.....	1	.....	1	.....	2
Dolphinton	14	213	.....	.....	.....	.....	.....	.....	10	.....	4	.....	14
Douglas	27	439	1	.....	1	.....	1	1	13	1	5	1	21
Dunsyre	7	123	.....	.....	.....	.....	.....	.....	2	.....	2	.....	4
Lam'gt'n,&c.	9	68	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lanark	10	195	.....	.....	.....	.....	.....	.....	8	1	1	.....	10
Lesmahgw	164	3368	10	.....	10	1	9	8	95	24	34	9	170
Libberton	26	576	.....	.....	.....	.....	.....	.....	26	5	12	4	47
Pettinain	15	249	1	.....	1	.....	1	1	8	1	4	1	15
Symington	19	147	.....	.....	.....	.....	.....	.....	2	2	1	.....	5
Walston	26	263	.....	.....	.....	.....	.....	.....	6	.....	2	.....	8
Wiston, &c.	16	186	.....	.....	.....	.....	.....	.....	1	.....	2	.....	3
Total for													
Upp. Ward,	637	10,746	26	1	25	4	22	25	303	47	101	23	499

Refractories Industries (Silicosis) Scheme.

The only work coming under the above heading is the Brickwork belonging to the Clydesdale Brick and Quarry Company. Owing to the depression of trade, work has only been of an intermittent kind, the Brickworks being closed down for the greater part of the year. Early in the year 19 examinations were carried out—males, 8; females, 11. Of these, 6 were first examinations and 13 were second or subsequent examinations.

The general physique was excellent and no evidence of any disease was found.

MATERNITY AND CHILD WELFARE.

While the Burghs of Biggar and Lanark are included in the Upper Ward District Scheme, the statistics relating to the three areas are given separately.

UPPER WARD. — Staffing Arrangements. — The staffing arrangements remain as stated in previous reports. Three whole-time Nurse Health Visitors are employed, and the services of the District Nurses in Biggar, Crawford, Thankerton, Forth, Lesmahagow are obtained as part-time Health Visitors in connection with this scheme.

The number of **births** registered in the Upper Ward corrected for transfers numbered 1144—males, 560; females, 584; the birth-rate for the year being 23.9 per 1000 of the population. Of the 1144 births, 77 were illegitimate—males, 38; females, 39; giving an illegitimate rate of 6.7 per 100 births.

Notifications.—Of the total births, 1119 were registered in the district, and of these 1116 or 99.7% were notified. In addition, 33 still-births were notified, 29 by the medical practitioner in attendance, and 4 by certified midwives.

Table E. shows the births registered, births notified, visits made by the Nurse Health Visitors, the attendant at confinement as ascertained at the first visit, infant deaths registered, and the infantile death-rate, the information being tabulated according to registration districts, and sub-divided into agricultural and industrial areas.

Infantile Mortality.—After correction for transfers the deaths of infants under 1 year numbered 74—males, 43; females, 31; of which 68 were registered in the district, the infantile mortality rate for the year being 64.6 per 1000 births, as compared with the rate of 92.06 per 1000 births for the previous year. Of the 74 deaths, 70 were legitimate infants—males, 41; females, 29—giving a legitimate mortality rate of 61.1 per 1000 births, while the illegitimate deaths numbered 4—males, 2; females, 2—giving an illegitimate mortality rate of 3.4 per 1000 births. Classified according to groups of diseases, 35 or 47.2 were due to developmental causes, which include prematurity, atrophy, etc. Of these 35 deaths, 30 or 85.7% occurred during the first four weeks of life.

TABLE E.

REGISTRATION DISTRICTS.	BIRTHS.			NUMBER OF VISITS.				ATTENDANT AT CONFINEMENT.			INFANT DEATHS.	
	Registered (corrected for transfers).	Notified.		First.	Subsequent.	Special.	TOTAL.	Doctor.	Certified Midwife.	Handy woman.	Registered Deaths (corrected for transfers).	Infant Mortality Rate.
<i>Chiefly Industrial.</i>												
Carluke - - -	266	266	2	222	1558	.....	1780	262	5	1	14	.....
Carmichael - - -	30	27	1	38	444	.....	482	16	12	.....	2	.....
Carnwath - - -	35	31	1	18	100	2	120	25	2	5	4	.....
Forth - - -	65	60	4	57	532	.....	589	55	6	3	4	.....
Haywood - - -	107	103	2	96	408	.....	504	74	26	5	8	.....
Carstairs - - -	47	46	1	33	326	6	365	47	.....	.....	2	.....
Leadhills - - -	19	17	.....	.....	.....	.....	.....	17	.....	.....	1	.....
Douglas - - -	67	70	4	52	508	10	570	67	7	.....	5	.....
Lanark - - -	49	46	3	42	352	19	413	44	5	.....	2	.....
Lesmahagow - - -	238	229	9	176	1476	109	1761	208	27	3	13	.....
Kirkfieldbank - - -	38	40	.....	29	275	29	333	22	17	1	4	.....
Coalburn - - -	90	90	3	85	872	128	1085	93	.....	.....	6	.....
Total - - -	1051	1025	30	848	6851	303	8002	930	107	18	65	.....
<i>Chiefly Agricultural.</i>												
Biggar - - -	10	9	.....	4	15	.....	19	9	.....	.....	1	.....
Covington - - -	6	6	.....	10	87	.....	97	6	.....	.....	1	.....
Crawford - - -	14	13	.....	9	180	.....	189	12	1	.....	.....	.....
Crawfordjohn - - -	7	7	2	.....	.....	.....	.....	9	.....	.....	.....	.....
Coulter - - -	8	9	.....	4	12	.....	16	9	.....	.....	3	.....
Dolphinton - - -	4	4	.....	.....	.....	.....	.....	4	.....	.....	1	.....
Dunsyre - - -	6	4	.....	.....	.....	.....	.....	4	.....	.....	.....	.....
Lamington - - -	6	5	.....	.....	.....	.....	.....	5	.....	.....	.....	.....
Libberton - - -	10	12	.....	.....	.....	.....	.....	12	.....	.....	1	.....
Pettinain - - -	6	6	.....	7	133	.....	140	6	.....	.....	2	.....
Symington - - -	6	6	1	3	8	.....	11	6	.....	.....	.....	.....
Walston - - -	4	4	.....	.....	.....	.....	.....	4	.....	.....	.....	.....
Wiston - - -	6	6	.....	.....	.....	.....	.....	6	.....	.....	.....	.....
Total - - -	93	91	3	37	435	.....	472	92	1	.....	9	.....
Combined Total	1144	1116	33	885	7286	303	8474	1022	108	18	74	64.6
Burgh of Biggar - - -	16	14	.....	15	110	.....	125	14	.....	.....	.....	.....
Burgh of Lanark - - -	156	159	5	76	738	119	933	131	30	3	9	58

Of the acquired diseases the largest number of deaths were due to respiratory diseases—pneumonia, 9; bronchitis, 1; other respiratory diseases, 1; equalling a total of 11, being 14.8% of the total infantile deaths. In this group there is a marked decrease in the number of deaths in comparison with the previous year's figure of 25.

In the infectious diseases group, whooping-cough was the cause of 9 deaths, measles 1, equalling a total of 10, being 13.5% of the total infant deaths.

Table F. shows the infant deaths arranged according to certain group causes, and age periods.

TABLE F.—UPPER WARD DISTRICT.

Cause of Death.	Age Periods.									
	Weeks.					Months.				
	-1	-2	-3	-4	Total.	1-3	-6	-9	-12	Total.
1. Prematurity, -	13	2	2	.....	17	.....	.....	.....	.....	17
Congenital										
Malformation, -	.....	.....	2	.....	2	1	1	.....	.....	4
Atelectasis, -	1	.....	.....	.....	1	.....	.....	.....	.....	1
Injury at Birth, -	1	.....	.....	.....	1	.....	.....	.....	.....	1
2. Atrophy, Debility, and Marasmus, -	6	1	1	1	9	3	.....	.....	.....	12
3. Diarrhoea, -	.....	.....	.....	.....	.....	.....	3	.....	1	4
Other Digestive Diseases, -	.....	.....	.....	.....	.....	.....	1	.....	.....	1
4. Pneumonia, -	.....	.....	.....	.....	.....	1	4	3	1	9
Bronchitis, -	.....	.....	.....	.....	.....	.....	1	.....	.....	1
Other Respiratory Diseases, -	.....	.....	.....	.....	.....	.....	.....	.....	1	1
5. Tuberculosis :—										
Pulmonary, -	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Meningeal, -	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Abdominal, -	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Others, -	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
6. Convulsions, -	2	1	.....	.....	3	.....	2	.....	1	6
Meningitis, -	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
7. Measles, -	.....	.....	.....	.....	.....	.....	1	.....	.....	1
Whooping-Cough, -	.....	.....	.....	.....	.....	.....	5	2	2	9
Diphtheria, -	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scarlet Fever, -	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8. Syphilis, -	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
9. Violence, -	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10. All other causes,	2	2	.....	1	5	.....	.....	1	.....	6
	25	6	5	2	38	5	18	7	6	74

Maternal Morbidity and Mortality.—Careful enquiry is now being made into all deaths that occur within four weeks of pregnancy with a view to ascertaining the causes of these deaths and considering what steps should be taken to prevent them. Meanwhile the information obtained from the local registrars returns of deaths shows that during the year 3 maternal deaths took place. Of these, 2 occurred in the Maternity Hospital, Bellshill, and the other at home, attended by a medical practitioner.

The death which occurred at home was certified to be due to “Puerperal Embolism.”

One of the deaths at Bellshill was that of a woman, aged 41 years, who had borne five children and had had two abortions. On a previous occasion she had been admitted for Gynaecological treatment, but this time a more serious operation was considered necessary. Although the operation was successfully carried out she died, not surviving from the post-operative shock. The cause of death was certified as “Peritonitis.”

The other death at Bellshill was that of a woman, aged 38, in the eclamptic stage, with very marked albuminuria. Her condition on admission was considered too serious for carrying out accouchement forcé.

Puerperal Septicaemia.—During the year 1 case was notified by a medical practitioner. The case was of a mild nature and made a good recovery.

Ophthalmia Neonatorum.—During the year 2 notifications were received. Both were notified by the medical practitioner in attendance. Visits were made by the Nurse Health Visitors, and the cases were classified as mild. Both cases made complete recoveries, with no impairment to vision.

Hospital Treatment.—During the year there were 27 admissions to the County Maternity Hospital, Bellshill, which were as follows: Normal confinements, 13; abnormal confinements, 4; illness connected with pregnancy, 10. There were 8 admissions to the County Convalescent Home, Calderbank—illness connected with pregnancy, 3; children under 5 years, 5.

Child Welfare Centres.—The attendances and consultations at the three Child Welfare Centres were as follows:—

				Mothers.	Babies and Children.	Consultations.
Lanark,	—	—	—	246	237	20
Carlisle,	—	—	—	918	696	27
Coalburn,	—	—	—	318	279	24
				<hr/>	<hr/>	<hr/>
Total,	—	—	—	1482	1212	71
				<hr/>	<hr/>	<hr/>

During the year, 9 lectures and 2 demonstrations were given at the various Centres.

Necessitous Cases.—The number of cases receiving assistance decreased greatly during the year. The cases who received assistance numbered 86, consisting of children, 80; nursing mothers, 4; and expectant mothers, 2.

BURGH OF LANARK.—The number of births in the Burgh after correction for transfers, amounted to 156, of which 5 were illegitimate, giving a birth-rate of 25 per 1000 of the population. The attendants at birth will be found in Table E, which also gives the number of births notified, and the visits made by the Nurse Health Visitor.

Infantile Mortality.—The deaths of infants under 1 year numbered 9, giving an infantile mortality rate of 58 per 1000 births. The causes of death were premature birth, 5; congenital malformation, 1; erysipelas, 1; bronchitis, 1; enteritis, 1. Total, 9.

Ophthalmia Neonatorum.—No cases were notified during the year.

Hospital Admissions.—During the year 10 cases were admitted to hospital. County Maternity Hospital, Bellshill, 8—normal cases of confinement, 5; abnormal cases of confinement, 1; illness connected with pregnancy, 2. Children under 1 year—County Convalescent Home, Calderbank, 1; County Hospital, Blantyre, 1, both being cases of marasmus.

Necessitous Cases.—The number of cases who received assistance during the year showed a decrease in comparison with last year,

being 14, as follows:—Children under 5 years, 13; expectant mothers, 1.

BURGH OF BIGGAR.—The number of births after correction for transfers amounted to 16—males, 10; females, 6—giving a birth-rate of 10.7 per thousand of the population. Of these births 1 was illegitimate, giving an illegitimate rate of 6.25 per 100 births.

Notifications of birth and the attendants at birth, as well as the visits made by the Nurse Health Visitor, will be found in Table E.

Infantile Mortality.—There were no deaths under 1 year, the infantile mortality rate thus being nil.

Hospital Admissions.—There were no admissions to Hospital during the year.

Ophthalmia Neonatorum.—No cases were notified during the year.

Necessitous Cases.—During the year assistance was granted to 1 case.

GENERAL SANITATION.

Housing.

During the year 73 sets of plans were submitted to the Committee. These related to new buildings and to alterations and additions to existing properties, the details of which will be found in the report of the Sanitary Inspector.

Housing (Subsidy) Act, 1923.—Under this subsidy scheme 9 houses were erected during the year. The Committee approved of a grant of £82 for each house, the only condition attached to payment of the subsidy being that for a period of five years the house should not be used otherwise than for a separate dwelling-house and that no addition or enlargement should be made without the consent of the District Committee. Under this scheme 12 houses of two apartments with scullery and bathroom are to be erected by the Committee at Carnwath, while the desirability of the provision of 24 houses of the same type, to be erected at Douglas Water was also agreed upon.

The approval of the Board of Health was given to the sites and type plans for these houses.

Scheme for Improvement of Insanitary Areas.—Under this Scheme 100 houses are to be erected, consisting of 2 apartments with scullery and bathroom. These were allocated as follows:—Forth, 40; Coalburn, 32; Carluke, 28. The sites and plans were approved of. The Board of Health agreed to make an annual contribution of £550 out of the grant, towards meeting the annual loss on the scheme, provided that this sum did not exceed half the annual loss thereon.

Housing, etc., Act, 1919.—The various houses under this scheme are now nearing completion, and in the majority of instances are complete and the houses occupied. The 32 additional houses at Forth mentioned in last year's report were built of the bungalow type. These are also nearing completion.

Ponfeigh.—The improvements to be carried out by the Coltness Iron Co., mentioned in last year's report, have now been completed.

Water Supply.

Public Supplies.—*Carluke.*—The population in this district has increased considerably. In 1914 the Valuation Roll shows 1299 houses, with a population of 5715, and for this year there are 1432 houses with a population of 6300, or an increase of fully 10 per cent. in 10 years. There has also been an increased consumpt of water by the introduction of modern sanitary conveniences, bathrooms and w.c.'s. The original water supply was obtained from Springfield and later an additional supply was obtained from the Burgh of Motherwell and Wishaw Commissioners at a rate of 4½d. per 1000 gallons, which costs the Carluke district about £1000 per annum, but this augmented supply does not rise to the higher situated properties in the town.

During the year the local committee made enquiry as to an increased supply, and a sample was taken from springs on the lands of Gateside Farm, near Kilncadzow, and a sample from an opencast on the lands of Leamuir Farm, Carluke. Both these samples show no evidence of nitrogenous organic pollution, but the hardness was greater than is desirable in domestic water supplies. As it was thought that a sufficient supply could not be obtained from these sources, further investigations are being made.

Forth and Wilsontown.—This special district was formed in the year 1905. The supply is obtained from springs on the lands of Mossplatt and gravitates to a tank at Lower Throughburn, and from there it is pumped to an elevated tank at Forth. Owing to the increase in the number of houses with modern sanitary conveniences it is necessary that an increased supply should be obtained, and some details as to investigations made are given in the Report of the Sanitary Inspector. In connection with these investigations a sample was taken from a pipe on lands of Mossplatt regarding which the Chemist reports as follows: "This is a highly coloured peaty water. The amounts of albuminoid ammonia and oxygen absorbed are considerably higher than are usually found in water of this colour, but there is nothing to suggest that this ammonia is of animal origin."

Further investigations are being made regarding an additional supply from Skylaw and Lambcatch.

Crossford and Hazelbank.—This area has now been formed into a special water district, a supply being obtained by an extension of the Braidwood supply which is taken from the Wishaw trunk pipe. When the work is completed this will allow of an abundant supply to the school at Underbank, referred to in the annual report of last year.

Ponfeigh.—Following on the introduction of modern sanitary conveniences into the houses in this village, an additional water supply had to be obtained from the Middle Ward District trunk pipe, which passes along the Carlisle highway on its way from the New Camps Water Scheme.

Private Supplies.—*Yonderton, Lesmahagow.*—A sample was taken from the well at this farm. The results of examination indicate that this water is free from pollution.

Wiston Schoolhouse.—Two samples were received from the Education Authority for examination, one being taken from the tank at the School and the other from a tap. The source of this supply is an upland surface stream. The results of examination indicated that this water was practically free from nitrogenous organic matter and that filtration to remove the suspended matter would render the water satisfactory for domestic purposes.

Climpy.—A sample was taken from a well at Climpy which

had been suggested as a supply for a cottage. The results of examination showed that although the physical characters were not satisfactory there was no evidence of pollution.

Henshilwood, Braehead.—In connection with a case of Enteric Fever, complaint was made regarding the water supply to this farm. Two samples were taken for chemical examination (1) from weir where water is collected to supply the farm, and (2) from spring, the overflow of which supplies the farm. The results afforded no evidence of nitrogenous organic contamination.

Stonehill Cottage, Carmichael.—As the gravitation supply to this cottage had fallen short for domestic requirements two samples were examined, which were taken from a well which might have afforded an additional supply if the gravitation supply again failed. The results of analysis indicated that the water from the well was not of sufficient purity for domestic purposes.

Stablestone Public School, Douglas.—A sample of water was received from the Education Authority. The results of analysis indicated that this water was free from nitrogenous organic impurity, and it was suggested to the Education Authority that filtration to remove suspended matter would provide a suitable water for drinking purposes.

Woodmailing, Symington.—A sample of water was taken from a spring at this cottage as there was a possibility of sewage pollution, but on examination no evidence of sewage pollution was found.

New Lanark.—A sample was received from the Gourrock Ropework Co., taken from a bore 45 feet deep. The results afforded no evidence of the presence of nitrogenous organic matter, but the amount of hardness was considerably greater than desirable in water for domestic purposes.

Drainage and Sewage Disposal.

In two instances (Roadmeetings and Brocketsbrae) the Committee had before them requisitions requesting the formation of special drainage and scavenging districts, but after careful consideration, it was found impossible to proceed with the requests on account of the heavy rate of assessment that it would involve. The Committee agreed, however, that it was desirable that there should be Government assistance to Local

Authorities for schemes in small rural areas enabling the provision of modern sanitary facilities.

Carstairs Village.—During the year this area was formed into a special drainage district. The sewage is to be treated by passage through a septic tank, the effluent being discharged into the Flush Burn. The formation of this district will meet a much needed sanitary want, and will be taken full advantage of by owners of properties by the introduction of modern conveniences.

Ponfeigh.—This area was also formed into a special drainage district, the boundaries of which coincide with the boundaries of the Ponfeigh special scavenging district as situated within the Parish of Carmichael.

Carluke.—Complaints having been made of the pollution of Jock's Burn, it was considered desirable to provide a settling tank before distributing sewage on to the irrigation fields. This work is being carried through and soon will be completed.

Further particulars of various districts will be found in the report of the Sanitary Inspector.

Scavenging.

The number of special scavenging districts in the Upper Ward is now 13. The special district of Carstairs Village is now in operation. Further details of the various districts will be found in the report of the Sanitary Inspector.

Workshops.

The registered workshops in the district are dealt with in the report of the Sanitary Inspector.

Dairies.

During the year no complaints were received regarding the milk produced in the district.

Milk (Special Designations) Order (Scotland) 1922. The District Committee delegated their powers under this order to the Public Health Committee, and the Board of Health approved of the arrangements made by the Committee for the administration of this order. At the end of the year there were 7 producers of Grade A. (Tuberculin Tested) milk, and 2 producers of Grade A. milk in the district. The bulk of the Grade A. (Tuberculin Tested) milk is sent out of the district.

Food and Drugs.

The administration of the Sale of Food and Drugs Act is undertaken by the County Council, and full information as to the samples taken for analysis and other work done will be found in the County report.

Meat Inspection.

Details of the work carried out at the Public Abattoirs are given in the Report of the Sanitary Inspector.

During the year the Scottish Board of Health issued the Public Health (Meat Inspection) Regulations (Scotland) 1923, with schedules of instructions with reference to methods of inspection, disposal, etc.

These regulations provided for the appointment of Meat Inspectors and Detention Officers and required a return showing (1) the number of animals slaughtered, (2) the number of carcasses inspected, and (3) the number and weight of carcass seized.

Copies were sent out to each slaughterhouse and the following report was submitted to the Public Health Committee :—

Meat Inspection.

In accordance with the Committee's instructions to prepare and submit a complete scheme giving effect to the whole provisions of the Public Health (Meat Inspection) Regulations, I would recommend that the existing staff be formally appointed as follows :—

Meat Inspector—

John Jarvie, M.R.C.V.S.

Detention Officers—

Wm. Paterson, Sanitary Inspector.

James Russell, Slaughterhouse Supt., Carluke.

Alex. Armstrong, „ „ Lesmahagow.

S. Morrison Lamb, „ „ Douglas.

Wm. Graham, „ „ Forth.

I should be extremely sorry to see the existing arrangements disturbed, and the persons named are quite qualified to conform with Sections 3 and 4 of the Board's regulations. The records referred to in Section 5 have always been kept by the Meat Inspector or Detention Officers and are collected in

the District Offices, where they are examined by the Medical Officer of Health and are available to the Board's Officers when required.

With regard to Section 6, which requires that the days and hours for slaughtering at private slaughterhouses should be specified, it should be remembered it is only a superior class of cattle which are slaughtered in these premises in the Upper Ward District, and very rarely any evidence of disease is found. There is therefore not the same need for any elaborate arrangements in connection with these premises. I hope to visit all the private slaughterhouses in the Upper Ward on an early date with the Sanitary Inspector and arrange with the licensees the days and hours of slaughtering, and a Detention Officer will then arrange to visit on these hours when necessary. It will be noted that the Board intend issuing a model set of by-laws regulating slaughterhouses, and I understand there are also new forms being issued for keeping the records, but I believe these will be found to be on the lines of those presently in use in Lanarkshire.

The recommendations submitted above are simply confirming the appointments that have been in force for a number of years, and which are given in detail in the Review Report on Meat Inspection, which report has already been issued to the members of the District Committee.

Meat Inspection is a subject in which I can claim to have had a long and varied experience, and although I have not mentioned my own name in connection with the proposals made, my duties as Medical Officer of Health, under the Public Health Act and Regulations made thereunder, are amply sufficient for me to exercise a general supervision over the work of meat inspection.

(Sgd.) JOHN T. WILSON.

The Committee approved of the report and appointed the Meat Inspector and Detention Officers named therein to be Meat Inspector and Detention Officers under the Regulations.

The private slaughterhouses were visited by the staff and a weekly return was arranged for giving an account of all the slaughtering done on the premises.

Offensive Trades.

The premises which come under this heading are the four public and seven private slaughterhouses, the knacker's yard at Whitelees, Lanark, and the bone degreasing business at Braidwood. These were regularly inspected by the Sanitary Inspector's staff, and the premises were found to be kept in a satisfactory manner. Full information regarding the number of animals slaughtered and carcasses, etc., condemned, will be found in the report of the Sanitary Inspector.

Rivers Pollution.

The administration of the Rivers Pollution Prevention Acts is undertaken by the County Council, and information as to the action taken will be found in the County Report.

Report of the Sanitary Inspector.

Housing.

Building By-Laws.—73 sets of plans were lodged during the year 1923 in terms of the Building By-laws. These plans related to new buildings and to alterations and additions to existing properties. The plans, together with the relative schedules of information, were examined, reported upon, and submitted to the Public Health Committee.

Plans, in order to be considered by the Committee at their ordinary monthly meetings, must be lodged with the District Clerk and all points in connection therewith adjusted with the Inspector of Buildings not later than the eighth day of each month. It is desirable to emphasize this fact as too frequently plans are sent in late, which causes delay and disappointment.

When the plans are approved by the Committee they are returned together with three forms of intimation which are later to be forwarded to the District Clerk in the following order, indicating the progress of the work: (1) commencement of work; (2) drain-testing; and (3) completion of buildings.

In connection with new buildings, 54 smoke tests were carried out and 216 inspections were made.

The tabular statement opposite shows the plans dealt with in the course of the year, arranged according to parishes.

During the year 25 houses were provided by private enterprise. Details of these are as follows:—

Garage and dwelling-house of 4 apartments, bathroom, etc., at Symington.

PARISH.	No. of Plans.				New Houses and Apartments.					Apartments added to Existing Houses.			
	Submitted	Passed	Rejected.	Not pro- ceeded with	Two	Three	Four	Five and upwards	Total	One	Two	Three	Total
Biggar, -	4	4	...	...	1	1	3	3	8	...	2	...	2
Carluke, -	18	17	1	...	...	...	...	...	...	...	...	...	7
Carmichael, -	1	1	...	...	...	...	...	...	...	...	...	...	1
Carnwath, -	5	5	...	...	...	1	...	...	1	...	...	...	...
Carstairs, -	4	4	...	...	1	...	...	1	2	...	...	...	...
Covington, &c., -	...	...	...	...	...	...	...	...	...	...	...	...	...
Crawford, -	2	2	...	...	...	...	...	...	...	...	...	...	1
Crawfordjohn, -	3	3	...	1	...	...	...	...	...	...	...	...	1
Coulter, -	...	...	...	...	...	...	...	...	...	...	...	...	...
Dolphinton, -	...	...	...	...	...	2	...	...	...	...	...	...	...
Douglas, -	5	5	...	...	1	2	...	...	3	...	...	...	...
Dunsyre, -	...	...	...	...	...	...	...	...	...	...	...	...	...
Lamington, &c., -	...	...	...	...	...	...	...	...	...	...	...	...	...
Lanark, -	5	4	1	...	2	1	...	1	4	...	...	...	...
Lesmahagow, -	20	20	...	1	2	3	3	...	8	...	1	1	2
Liberton -	...	...	...	...	...	...	...	...	...	...	...	...	...
Pettinain, -	1	1	...	...	...	...	...	...	...	...	...	...	...
Symington, -	5	5	...	...	...	2	1	2	5	...	...	...	...
Walston, -	...	...	...	...	...	...	...	...	...	...	...	...	...
Wiston, &c., -	...	...	...	...	...	...	...	...	...	...	...	...	...
Total, -	73	71	2	2	7	10	7	10	34	...	3	1	4
													12

Two cottages, each of 3 apartments, with scullery and bathroom, at Crossroads, Symington.

Dwelling-house of 5 apartments and offices at Biggar Road, Symington.

Dwelling-house consisting of 1 room and kitchen, with scullery, larder and coalhouse (Ploughman's cottage), at Burnhead Farm, Lesmahagow.

Dwelling-house consisting of 1 room and kitchen, with scullery, larder and coalhouse (Ploughman's cottage), at South Draffan.

Timber-built house of 3 apartments on brick foundation, with w.c., etc., at Kirkmuirhill.

Two-storey house, comprising 8 living apartments with scullery, bathroom and other offices, at Stanmore Farm, Lanark.

Two semi-detached cottages, each comprising living-room, parlour, 2 bedrooms, scullery and bathroom at Milton Lands, Lesmahagow.

Bungalow, comprising 3 apartments, with scullery, at Forth Mains, Carnwath.

Cottage of 5 apartments, bathroom, etc., near Biggar Road.

House, comprising living room, parlour, 2 bedrooms, bathroom, etc., on lands of Milton, Lesmahagow.

Caretaker's House of 3 apartments, bathroom, etc., at Coalburn.

Cottage of 4 apartments, scullery, bathroom, etc., at Stewart Street, Carluke.

Caretaker's House of 3 apartments, scullery, etc., at Blue Tower, Douglas.

Dwelling-house of 2 public rooms, 2 bedrooms, kitchen, scullery, bathroom, etc., at Carstairs Village.

Block of 2 houses (semi-detached), each of 5 apartments, with scullery, bathroom, etc., at Castlehill, Carluke.

Detached dwelling-house, comprising 7 apartments and offices at New Road, Biggar.

House of 6 rooms, bathroom, scullery and other offices at New Road, Biggar.

Villa of 6 rooms and kitchen with scullery and bathroom at Kirkstyle Avenue, Carluke.

Dwelling-house, comprising two public rooms, 3 bedrooms, kitchen, bathroom, etc., at New Road, Biggar.

Cottage of 3 apartments, scullery and w.c., at Auchtykernal, Lesmahagow.

Dwelling-house of 3 apartments, scullery and bathroom at Catcraig, Carluke.

In addition to the above, the following eight houses were erected under the Subsidy Scheme, whereby a grant of £82 for each house was approved:—

Cottage, comprising 4 apartments, scullery and bathroom at Mill Road, Carluke.

One house of 3 apartments and two houses of 2 apartments, at Jerviswood Mains, Lanark.

Cottage of 2 apartments, scullery and w.c., at Greenbank Farm, Carluke.

Ploughman's cottage, consisting of 2 rooms, scullery, etc., at Harelaw Farm, Carstairs.

Dwelling-house of 2 apartments, with scullery and bathroom, at Glespin, Douglas.

Cottage of 4 apartments, scullery and bathroom, at Carnwath Road, Carluke.

A feature of the year under review was the provision in various mining areas of Welfare Institutes for mine-workers. These generally included such facilities as lecture or cinema hall, reading rooms, bowling and billiard rooms, etc., with all necessary conveniences. These institutions satisfy a much-felt want and are greatly appreciated.

The following is a list of these Miners' Welfare Institutes, together with other kindred buildings erected for the purposes of recreation:—

Institute for mine-workers at Coalburn.

Recreation Hall, Bowling Hall with ante-room, w.c's, etc., at Glespin, Douglas.

Hall and Recreation Rooms with suitable lavatory accommodation, at Blue Tower, Douglas.

Clubhouse with Bowling Green, at Forth, Carnwath.

Hall with ante-rooms, at Braehead, Carnwath.

Additions and alterations forming Welfare Institute at Law, Carluke.

New clubhouse, with kitchen and all conveniences, for Biggar Bowling Club.

Hall, with ante-rooms and lavatory accommodation, at Pettinain.

The other plans submitted related to alterations and additions to existing buildings, etc., including the following:—

Alterations and additions, including new lavatories, to St. John's School, Blackwood; alterations and additions to school at Douglaswater; shop, back-shop, and w.c. at Nethanvale Terrace, Lesmahagow; addition of 2 bedrooms, bathroom, etc., at Moor Edge, Carluke; army hut as shop at Carstairs Junction; erection of colliery workshops at Castlehill, Carluke; addition of 2 bedrooms, bathroom, etc., at Lanark Road, Braidwood; alteration of upper floor of building to comprise 2 bedrooms, kitchen, scullery and w.c., at Southfield Inn, Blackwood; additions and alterations to shop and dwelling-house and necessary offices with garage at High Street and Union Street, Carluke; addition of bathroom and enlargement of back-kitchen and scullery at Inverclyde, Crawford; addition of scullery, larder, w.c., bathroom and linen-press at Drumclog House, Forth; addition of bedroom and bathroom at Forth, Carnwath; shop and back-shop, oil-store, lavatory, etc., at Main Street, Carnwath; provision of sculleries, w.c's, etc., to 5 dwelling-houses at Shieldhill Road, Carluke.

State-Aided Housing Schemes.—The appended table shows the progress made up to the end of the year with the various housing schemes approved of by the Scottish Board of Health. These houses are all of three or four apartments and each is provided with scullery and bathroom.

Site	No. of Houses to be built.	Houses Let.	Nearing Completion.	Still to be built.	Rent
Temporary Accommodation—					
Coalburn — —	6	6	.....	.....	£15 12/-
Douglas, — —	4	4	.....	.....	15 12/-
Forth, — —	4	4	.....	.....	15 12/-
Lesmahagow, — —	4	4	.....	.....	15
Rigside, — —	12	12	.....	.....	15 12/-
Ponfeigh, — —	30	30	.....	.....	16 16/-
Auchenheath, — —	20	20	.....	.....	20 & 24
Blackwood, — —	52	52	.....	.....	20 & 24
Carluke (Sandy Road),	48	48	.....	.....	20 & 24
Do. (Shieldhill), —	54	54	.....	.....	20 & 24
Carstairs, — —	14	14	.....	.....	20 & 24
Carstairs Junction, —	50	50	.....	.....	20 & 24
Coalburn, — —	78	64	14	.....	20 & 24
Douglas, — —	40	40	.....	.....	20 & 24
Forth, — —	54	22	32	.....	20
Law, — —	46	46	.....	.....	20 & 24
Lesmahagow, — —	102	88	14	.....	20 & 24
	618	558	60	.....

Housing, Town Planning, Etc., Act., 1909.—In the course of the year 64 houses were inspected and reported upon in terms of Section 17 of the Housing, Town Planning, &c., Act, 1909. A number of the houses inspected have, for some years, been considered by the Public Health Staff to be in a state so dangerous or injurious to health as to be unfit for human habitation.

The houses referred to have all been previously reported upon (see Annual Report, 1922), but were again visited during the year under review, when the Board's Housing Inspector accompanied the Sanitary Inspector.

It has not been considered expedient to recommend the Committee to make any Closing Orders in view of the clamant demand for the smaller type of house.

Under the scheme for the clearance of insanitary areas, 100 houses of 2 apartments with scullery and bathroom are to be erected, and no doubt when these houses are occupied it will allow of a few of the older houses being closed and demolished.

The 100 houses above referred to have been allocated by the Committee as follows :—Carluke, 28 ; Coalburn, 32 ; and Forth, 40.

In addition to the above, 12 houses of the same type are to be erected at Carnwath (with subsidy under Housing, &c., Act, 1923).

Housing, Town Planning, &c., (Scotland) Act, 1919.—During the years of the War, it was very difficult to get necessary improvements carried out on house property or to have modern sanitary conveniences introduced ; and while the cost of labour and materials still remains fairly high, it is very encouraging to note that a considerable number of improvements of this order were carried out during the year at the instance of the department.

A detailed statement of the sanitary conveniences introduced is appended.

It is, however, desired here to mention the extensive improvements carried out at Ponfeigh village by the Coltness Iron Company. The Committee's negotiations with the Company extended over a considerable period, but the results have been most satisfactory.

As will be seen from a reference to the sketch plan incorporated in the Annual Report of 1922, the improvements necessitated the reconstruction and enlargement of the existing sculleries, the laying on of the gravitation water to each, providing sink and washtub, and water-closet, which is entered from within. There is also a coal cellar with outside door.

These improvements will allow of the old structures, consisting of dry closets, ashpits and coal-cellars, being cleared away altogether. At the close of the year this work of demolition had not been completed, but it is hoped to have this done so soon as all the new conveniences are in use.

Special attention was again devoted to those areas comprising special scavenging districts where the dry conservancy system is still to some extent in existence and particularly those districts where drainage facilities are available.

The following statement gives in detail the sanitary conveniences provided and shows that during the year 232 w.c's, besides a considerable number of bathrooms, sinks, etc., were introduced to existing properties:—

Carluke, 28 W.C's.—New cast-iron drain laid and connected to sewer, privy and ashpit abolished, and 1 w.c. introduced for 4 tenants at property, Hamilton Street, Carluke; 1 w.c. to cottage at Bushelhead Road, Carluke; extension of existing scullery and introduction of w.c. to caretaker's house at the District Hospital; 1 w.c. for each of two houses at Birkfield, Law; introduction of bath, w.c., and wash-hand basin at Braidwood; bath, w.c., and wash-hand basin to cottage at Clyde Street; introduction of bathroom, w.c., and wash-hand basin for house, High Street; introduction of w.c. to house at Station Road; bath and wash-hand basin to house at High Street; conversion of privy into w.c. at cottage, Chapel Street; bath, w.c., and wash-hand basin to house at High Street; 5 w.c's for five cottages at Brownlee, Law; 1 w.c. for two houses, Mount Stewart Street; addition of sculleries, with w.c's and sink for two houses, Market Place; introduction of w.c. at Burnbrae, Lanark Road; 2 w.c's for six tenants at Clyde Street; w.c. and sink for each of two houses at Church Lane; w.c. for workshop, Clyde Street; w.c. for workshop, High Street; bathroom, w.c., etc., at Chapel Street; bath, w.c., and wash-hand basin for cottage, Burn Road.

Carmichael, 159 *W.C.*'s.—Alterations and additions to existing sculleries of 158 houses belonging to Coltness Iron Company at Ponfeigh Village—the improvements provide w.c. for each house with sink and washtub and coal cellar; addition of w.c. and sink at Robertson Bros., Ponfeigh.

Carnwath, 16 *W.C.*'s.—2 w.c.'s for two houses and sink for one house at Main Street; 1 w.c. for one house, Main Street; 1 w.c. for one house, Main Street; 4 w.c.'s for four houses, Main Street; bath, w.c. and wash-hand basin for house, Main Street; 3 w.c.'s, 3 coal cellars and 1 wash-house at North Back Row; 1 w.c. for house, Main Street; 1 w.c. for house, Main Street; bath, w.c., wash-hand basin and sink to house at Main Street, Forth; 1 w.c. and 3 sinks for three houses at Main Street, Forth.

Carstairs, 2 *W.C.*'s.—2 w.c.'s for two houses at Carstairs Junction.

Douglas, 3 *W.C.*'s.—2 w.c.'s for six tenants, Brown's Buildings, Douglas; introduction of w.c. to house in Main Street, Douglas.

Lesmahagow, 22 *W.C.*'s.—Addition of bathroom, w.c. and wash-hand basin at Parkview, Blackwood; conversion of 4 privies into 2 w.c.'s at Pretoria Terrace, Coalburn; conversion of privy into w.c. at Glenview, Coalburn; w.c. to cottage, Westend, Kirkmuirhill; 2 w.c.'s for two houses at Blackwood Cross; 1 w.c. and water to wash-house for two houses at Boghead Road, Kirkmuirhill; 2 w.c.'s and six sinks, etc., for six houses at Townhead, Kirkmuirhill; conversion of 3 privies into 3 w.c.'s for five tenants at Westend, Kirkmuirhill; introduction of bathroom, w.c. and wash-hand basin and scullery with sink and wash-tub, at Rose Cottage, Blackwood; introduction of bathroom, with w.c. and wash-hand basin at Scorrieholm Farm; w.c., sink and coal cellar at Glenview, Coalburn; w.c. and sink, Braehead, Coalburn; bathroom, w.c. and wash-hand basin with sink and scullery, Braehead, Coalburn; 3 w.c.'s and 1 wash-hand basin for workers (2 for males, 1 for females) Coalburn and District Co-operative Society's premises; bath, w.c. and wash-hand basin at Deadwaters Farm, Kirkmuirhill.

Wiston, 2 *W.C.*'s.—Introduction of w.c., sink and wash-hand basin to house; introduction of bathroom, w.c., with sink in scullery, to house.

Increase of Rent and Mortgage Interest (Restrictions) Acts, 1920 and 1923.

During the year 7 applications were made for certificates under the above Acts, in respect that the necessary repairs to the dwelling-houses had not been carried out. The premises were inspected and a report on each was submitted to the Public Health Committee. After consideration of these it was agreed to grant a certificate in every case.

The certificates granted were not exercised in court, and while the repairs were not immediately carried out, the 25% increase of rent was suspended by the landlord.

Water Supply.

SPECIAL WATER SUPPLY DISTRICTS.

There are now 16 Special Water Supply Districts as compared with 15 in 1922 ; the new area formed being Crossford and Hazelbank.

The Special Water Supply Districts now comprise the following: Blackwood, Braidwood, Carluke, Carnwath and Carstairs Junction, Carstairs Village, Crawford, Crossford and Hazelbank, Douglas, Forth, Kirkfieldbank, Law, Lesmahagow and Coalburn, Ponfeigh, Robertson, Symington, and Thankerton.

Of the above-mentioned water districts 11 are either wholly or partly supplied from the trunk pipes owned by the Burgh of Motherwell and Wishaw and the Middle Ward District Committee.

For particulars of assessment, see page 61.

The following is a Statement of Rainfall for the past 10 years, as recorded at Coldstream Reservoir, Carluke :—

Year	Rainfall in Inches.	Year	Rainfall in Inches.
1914	33.65	1919	31.85
1915	32.05	1920	38.75
1916	48.30	1921	39.70
1917	34.35	1922	30.15
1918	34.75	1923	38.65
Average for the 10 years		.....	36.22 inches.

In recent Annual Reports all of the Special Water Supply Districts have been fully reported upon, and it is therefore proposed, at this time, to deal only with those areas which have

experienced a shortage of supply and those in which improvements have been carried out, or are contemplated.

Blackwood and Auchenheath.—During the year frequent complaints were received regarding the intermittency of supply, particularly at the Committee's housing scheme at Auchenheath. The District Engineer and the District Sanitary Inspector were instructed to make observations with a view to determining what steps were necessary to improve the supply.

The following joint report was submitted to the local Committee, who resolved to give effect to the recommendations therein contained. In connection with said improvements, 643 yards of 5-in. cast-iron pipes and 430 yards of 3-in. cast-iron pipes were laid with satisfactory results.

Dear Sirs,

BLACKWOOD, ETC., WATER.

As instructed by you, we have together made numerous inspections of the District, both night and day, and would now submit for your consideration the following alterations, viz :—

(1) That a pressure-reducing valve be put on the Middle Ward supply pipe somewhere in the vicinity of the water meter. This is necessary and should be done at once, as the pressure on the Middle Ward pipe is greater than that from the Blackwood Service Reservoir, which accounts for this reservoir overflowing at night.

(2) That a new 5-inch pipe be laid from the top end of Kirkmuirhill down through the Cross to the Carlisle Road at Kirkmuirhill Farm. The reason this alteration is called for is the fact that the main from the Reservoir is 4 inches diameter to the top end of Kirkmuirhill and is then reduced to 3 inches. This 3-inch pipe is continued down to the Carlisle Road at Kirkmuirhill Farm, where it feeds another 4-inch pipe.

(3) That the 3-inch pipe which terminates between the railway station and Auchenheath school should be continued to the highest point at the Housing Scheme. (At present the 3-inch pipe above referred to is continued along the main road by a 2½-inch pipe, with a 2-inch pipe to supply the Housing Scheme and Auchenheath Farm.)

(4) That a ½-inch connection only be allowed in each case to Harrison's Colliery Company and the Clydesdale Brick and Quarry Co. If these works find the supply insufficient during

the day, they should be asked to put in cisterns sufficient for their requirements.

These alterations will help the supply very much and will make a considerable saving in the purchase of water from the Middle Ward; but we are afraid the supply to Tillietudlem Station will never be a success owing to (1) the small diameter of the pipe, namely, $2\frac{1}{2}$ inches; (2) the scattered area this pipe has to serve; and (3) the long distance the water has to travel. The shortage here, we understand, is not so acute as at Auchenheath, but will no doubt give trouble before long.

Your obedient Servants,

(Signed) JOHN M'CLEMENT,
District Engineer.

(Signed) WILLIAM PATERSON,
District Sanitary Inspector.

Braidwood—Mayfield Row.—The original supply to Mayfield Row was delivered by means of a $2\frac{1}{2}$ -inch pipe which was laid along the side of the public highway. At this point there is a huge blaes bing owned by the Coltness Iron Co. which periodically, through subsidence, had the effect of fracturing the water pipe. The Committee resolved to abandon this stretch of pipe and to substitute a new 3-inch pipe for a distance of 336 yards, which is laid along the Wilton Road to the houses above-mentioned.

Carluke.—The local Water Committee have given much consideration to the question of shortage of supply from the Springfield source (the Carluke original scheme). In addition to this source the Committee find it necessary to purchase a large volume of water from the Motherwell and Wishaw Water Commissioners. Notwithstanding that this water is being purchased at a favourable rate, namely, $4\frac{1}{2}$ d. per thousand gallons, the fact remains that this water does not rise to the higher elevated positions in Carluke.

During the year a deputation appointed by the local Water Committee along with the District Sanitary Inspector visited several sources of supply in the surrounding district, and of these it was considered desirable to have samples taken for analysis (1) from an opencast on the lands of Leamuir Farm, Carluke—the analyst's report showed that there was no evidence of nitrogenous organic pollution, but that the amount of hardness was greater than is desirable in domestic water supplies, but otherwise the water was satisfactory; (2) from a spring on the lands of Gateside Farm,

near Kilncadzow, Carluke. These results afforded no evidence of nitrogenous organic pollution, but this water could not be recommended on account of excessive hardness.

Of the proposed additional sources inspected and referred to in the foregoing paragraphs the yield would not be nearly sufficient to enable the Committee to dispense with the Wishaw augmentation supply, and in these circumstances it might be desirable to look further afield for a supply which would adequately provide for the whole district. In this connection I might venture to suggest that an abundant supply might be obtained from a stream near Dunsyre, providing always that levels are satisfactory.

Dyke Row, Carluke.—In connection with the improved sanitary conveniences recently provided at Dyke Row, Carluke, it was found that the 2-inch pipe from the top of Sandy Road to Dyke Row was so badly corroded that it failed to deliver a sufficient volume of water to meet the increased requirements and the Committee agreed to relay this stretch of 528 yards with 3-inch cast-iron piping. The result has proved entirely satisfactory.

Crossford and Hazelbank.—During the year a special water district was agreed to and in view of the condition attached to the Unemployment Relief Works Grant for this scheme, operations had to be actively commenced by 30th November.

The Committee resolved to proceed with the work at once, and while it was not completed at the close of the year it is now well in hand. The work necessitates the laying of 6786 yards of 4-inch cast-iron pipes and 1200 yards of 5-inch pipe.

It might be mentioned that a number of owners of properties in this newly-formed district are arranging to have the water laid on to their properties.

Forth and Wilsontown.—Forth and Wilsontown are supplied from springs on the lands of Mossplatt which gravitate to the pumping station situated at Lower Throghburn. Thence the water is pumped to an elevated tank at Forth which has a holding capacity of 40,000 gallons.

This supply was inaugurated in 1905, and for a number of years proved sufficient for the requirements of the district. I might mention that the yield at that time was considered to be about 25,000 gallons per day.

In view, however, of the Committee's Housing Scheme, whereby it is proposed to erect, roughly, 100 houses, each of which is to be provided with all modern conveniences—baths, w.c's, etc.—it is now necessary to augment this supply.

At the close of the year the Local Water Committee had under consideration the following additional supplies: (1) the procuring of a connection from the Motherwell Commissioners, whose main pipe passes about a mile distant from the pumping station, and (2) impounding the springs at Skylaw and Lambcatch, which are, roughly, about 2 miles from Wilsontown and would gravitate to the tank at Forth.

The latter sources were visited in 1905, which was a particularly dry time. Measurements were then taken, and the average yield was as follows: Lambcatch Spring yielded 1 gallon in 10 seconds or 8,640 gallons in 24 hours; Skylaw Spring yielded 1 gallon in 14 seconds or 6,170 gallons in 24 hours.

It was also suggested that a thorough examination of any further springs on the lands of Mossplatt should be made, and at the close of the year under report the District Engineer and the District Sanitary Inspector were giving these matters their attention.

Rigside and Ponfeigh.—In view of the recent improvements to 158 houses in the village of Ponfeigh and the provision of a like number of w.c's, etc., the Committee resolved to procure an additional water supply. This was done by arranging for a connection from the Middle Ward Trunk Main at Millbank, Douglas, to the tank at Rigside. This necessitated the laying of 3912 yards of 4-inch cast-iron pipe. This work is now well in hand.

AREAS OUTWITH SPECIAL DISTRICTS.

Glespin.—Glespin water supply is obtained by gravitation, the source of which is in the vicinity of the railway about 500 yards distant, and is drawn off at two Kennedy wells placed convenient to the Rows. During the summer months there is a great scarcity of supply.

Glespin Rows, comprising 31 houses, are about 2 miles distant from Douglas. In view of the fact that these houses are included in a list of those premises ear-marked for closure so soon as more suitable accommodation is available, it would scarcely be expedient to press for an-extension of the Douglas supply.

Kaimend and Newbigging.—These two villages, the former about 1 mile and the latter about 2 miles distant from Carnwath, have no gravitation water supply, and during a prolonged drought suffer considerable hardship owing to lack of supply. It is hoped that the Carnwath Water District will at no distant date be extended so as to embrace these villages, and especially when it might be possible to procure the Unemployment Grant for work of this nature.

Nemphlar.—Nemphlar is supplied by draw wells and during a spell of drought there is a great scarcity. I understand that a requisition is being prepared for presentation to the District Committee with a view to the formation of a special water district.

It might be possible to get a connection from the Motherwell and Wishaw Commissioners' trunk main, as this pipe passes in the vicinity of Cartland Bridge.

SAMPLES OF WATER TAKEN FOR ANALYSIS.

14 samples of water were forwarded to the County Chemical Laboratory for examination. The results of analyses are referred in the Report of the M.O.H.

Drainage.

SPECIAL DRAINAGE DISTRICTS.

In all 13 areas have now been formed into Special Drainage Districts, this being an increase of 1 over last year. The new district is Carstairs Village, but the work has not yet been proceeded with.

The complete list includes the following areas: Blackwood and Auchenheath, Braidwood, Carluke, Carnwath, Carstairs Village; Coalburn, Crosslaw, Douglas, Law, Lesmahagow, Ponfeigh, Symington, Thankerton.

Having reported fully on all the special drainage districts in last year's Annual Report and as nothing of outstanding interest has occurred during the year, it is not proposed to go into detail on this occasion.

In the case of Carstairs Drainage District, the population of the district is 532 and the area 96 acres. No drainage work has yet been carried out, but the plans and specifications are in readiness and the work is to be proceeded with shortly.

The special district was only formed on 1st August, 1923, and is co-extensive with the special water supply district.

A septic tank in two sections, measuring over all 16 ft. by 12 ft. by 5 ft. deep, and a sludge pit are provided for, and the effluent is to be discharged to the Flush Burn. Ground is also available for filters should these be found necessary.

VILLAGES, HAMLETS, &C., NOT SPECIAL DRAINAGE DISTRICTS, BUT WHERE WORKS FOR THE TREATMENT OR PURIFICATION OF SEWAGE HAVE BEEN PROVIDED.

Carstairs Junction, parish of Carstairs.

Population, 980.

Septic Tank, measuring 16 ft. by 8 ft. by 5 ft. deep, provided with means for discharging sludge by gravitation on to the ground surface. This tank deals only with the sewage from a housing scheme of 50 houses; the outfall is to the River Clyde, and there is no pollution.

Crawford, parish of Crawford.

Population, 270.

There are four outfalls from this village, as follows:

(a) A small outfall at the north or Abington end, for which there is a septic tank measuring 5 ft. by 4 ft. 6 ins. by 4 ft. 6 ins. deep. The effluent discharged to a ditch, thence to the River Clyde.

(b) Another small outfall close to the above, for which there is a tank also measuring 5 ft. by 4 ft. 6 ins. by 4 ft. 6 ins. deep. The effluent also discharges to a ditch and the River Clyde.

(c) This is the largest outfall, and deals with the drainage of the central part of the village. The sewage is passed through a covered tank measuring 10 ft. 6 ins. by 5 ft. by 3 ft. deep, and thence through a smaller tank measuring 7 ft. by 6 ft. by 2 ft. deep. The effluent is conveyed in a pipe in a north-westerly direction for a considerable distance direct to the River Clyde at a point near the Railway station.

(d) This outfall conveys the drainage from the large temperance hotel and some villa residences owned by the

proprietor of the hotel. There is also a tank for this outfall, the effluent from which at times is allowed to flow over the surface of the field in which the tank is situated. The effluent drains to a ditch or small stream which has a run of about half a mile before it enters the River Clyde near the point at which outfall (c) discharges to the river.

Provided the tanks are cleaned out from time to time as required, there is no cause for complaint of pollution from these various outfalls.

Douglas West Colliery Village, parish of Douglas.

Population 475.

The means provided for purification of the sewage consist of an open brick-built tank about 15 ft. by 4 ft. by 3 ft. deep, divided into three compartments, and situated within the colliery grounds. The school drainage is also taken into the drain, but there is a tank or cesspool, situated within the school grounds, through which it first passes. The effluent from the tank is piped along with the pit water from the colliery direct to the Douglas Water. The flow of pit water is estimated at about 400 gallons a minute over the 24 hours, and no complaint of pollution has arisen. The tank is cleaned out periodically.

Forth, parish of Carnwath.

Population, 800.

There are three outfalls from Forth, all of which discharge to the River Mouse. The *upper* outfall conveys the drainage of Wilsontown Terrace (26 houses with w.c's) and the slaughterhouse. There are tanks for each of these properties. The outfall is piped for a distance of about 100 yards before discharging to the River Mouse, all the way to the stream.

The *mid* outfall deals with the new housing scheme. Purification works consisting of two grit chambers, each of 60 gallons capacity; two septic tanks, each measuring 25 ft. by 7 ft. by an average depth of 5 ft. 1½ ins., and of a capacity of 5330 gallons; and a sludge pit 900 sq. ft. in size, into which the sludge can be removed by gravitation. The effluent is satisfactory. Further houses are to be erected here, and will drain to these purification works.

The *lower or west* outfall, which conveys the drainage of

the remainder of the village, has a long run in a ditch between fields, partly piped and partly open, before it joins the Mouse. The ditch is polluted and it is cleaned out at the expense of the local authority from time to time. Its effect on the Mouse, however, is of little or no consequence.

New Lanark, parish of Lanark.

Population, 920.

The purification works consist of a septic tank measuring 40 ft. by 28 ft. by 6 ft. deep, and two contact filters about 18 ft. square. The effluent is discharged to the River Clyde, and is satisfactory. The tank is cleaned out at long intervals, it being last cleaned about seven years ago. The tank sludge is discharged direct to the stream, the method of sludge disposal being thus unsatisfactory.

Rigside, parish of Douglas.

Population, 220.

A tank measuring 6 ft. by 4 ft. by 4 ft. is provided for the drainage of a new housing scheme of 12 temporary houses. Other houses in the village are provided with small tanks or cesspools.

Tarbrax, parish of Carnwath.

Population, 1580.

The drainage of this shale-mining and oil work's village is conveyed by two outfalls to an irrigation area. The purification effected is at present unsatisfactory. Arrangements were made to provide a tank to free the sewage from gross solids before irrigation, and the work of construction was actually begun but was stopped on account of the war. The outfall is to the Greenfield Burn, a tributary of the North Medwyn.

Wilsontown, parish of Carnwath.

Population, 700.

A tank is provided for the drainage of Calder Terrace, a row of 16 houses with modern conveniences. There is also a tank for the school. The effluents are satisfactory. The drainage from the remainder of the houses consists of slop water and is not a source of pollution to the River Mouse.

Scavenging.

SPECIAL DISTRICTS.

At the close of the year being reported upon, there were 13 special scavenging districts in the Upper Ward District. This shows an increase of 1 over the previous year,—the new area being Carstairs Village.

The special districts are enumerated below.

Blackwood and Kirkmuirhill (which includes Auchenheath), Carluke, Carnwath, Carstairs Junction, Carstairs Village, Crosslaw, Douglas, Forth and Wilsontown, Haywood, Law, Leadhills, Lesmahagow, and Ponfeigh.

Blackwood, Kirkmuirhill and Auchenheath.—This district was formed in the year 1922. The work is contracted for. In view of the long distance separating Auchenheath from Blackwood and Kirkmuirhill, and the consequent cost that would be involved in scavenging the area as a whole, the Committee resolved to accept separate offers for this work.

The contract price for scavenging Blackwood and Kirkmuirhill is £105, and that for the Auchenheath Area £35 per annum—a total of £140 for the whole district.

The conditions require that the contractor shall empty all ashbins and other similar receptacles three times weekly, viz., Monday, Wednesday and Friday; and he is also bound to empty all ashpits still in use at least once a week.

As will be seen from another part of this report, quite a number of water closets were introduced during the course of the year and a like number of ashpits were abolished.

At the close of the year the Sanitary Inspector was negotiating with a number of property owners with the view of having modern sanitary conveniences introduced.

A tenement at the Cross, Kirkmuirhill, known as Benconnamore, has been the subject of complaint on many occasions in respect that the water closets were periodically choked. I might mention that when this property was erected, some 17 years ago, outside water-closets in the proportion of one to 3 tenants were provided. These conveniences were built alongside one another

in a block consisting of wash-house, coal cellars and w.c's. While the position of the water-closets was not all that could be desired, there is no doubt that the negligence of the tenants contributed to and aggravated any nuisance arising.

The proprietor has now implemented a promise made some considerable time ago, when he undertook to erect water-closet towers to be entered from the staircases. This will give the tenants direct access to the respective conveniences, and it is hoped that this will be an inducement to the tenants to exercise greater care and cleanliness in their use. This work is now being proceeded with.

Carlisle.—The daily collection and removal of refuse in this special district is carried out by a staff in the direct employment of the Local Authority.

The dry refuse is deposited in a Coup, while the ashpit contents are sold for manurial purposes to farmers in the district.

It is very satisfactory to note that not a single complaint was received during the year regarding ashpit nuisances.

The work of removing the household refuse from the Committee's housing schemes, which comprise 104 dwelling-houses, has involved a great deal of extra labour.

The introduction of modern conveniences and the consequent abolition of ashpits are still being pressed forward, as will be seen from the number of water-closets, etc., introduced in the course of the year.

Carnwath.—There are no ashpits in this district, and while there is still a number of properties not provided with w.c's, it will be seen that this number is steadily diminishing, 16 water-closets having been introduced in the course of the year.

The scavenging work is contracted for at a cost of £55 per annum.

Carstairs Junction.—There are no ashpits in this district. A daily removal system is in operation. The work is contracted for at a cost of £110, and is entirely satisfactory.

During the year 2 houses were provided with water-closets, and there are now only two privies in the district.

Carstairs Village.—This special district was recently formed. All properties presently provided with water-closets are scavenged three times weekly. The contractor is required to empty all ashpits in the district when necessary, and must in no case allow any ashpit to become overfull. This area has also been formed into a special drainage district, and this should facilitate the introduction of modern sanitary conveniences.

The contract price for the scavenging of this district is £50.

Crosslaw.—This district comprises the Loch Road only. The work is contracted for at a cost of £18 10/-. Dustbins are emptied twice weekly, viz., on Tuesday and Friday. The work is entirely satisfactory.

Douglas.—There are no ashpits in this district, although there still remains a number of dry closets. The work is carried out by the Committee's whole-time servant and continues to give every satisfaction.

Forth and Wilsontown.—The properties provided with modern conveniences are scavenged three times weekly. As recommended in last year's Annual Report, the Committee resolved to appoint a whole-time servant to be under their direct supervision, and to purchase a horse and cart. A marked improvement in the carrying out of the work has been effected.

Haywood.—The scavenging of Haywood is now undertaken in conjunction with that of Forth and Wilsontown, through an arrangement between the respective Committees.

The work involved is the emptying of ashpits, and one day weekly is set aside for this.

Law.—The work is let by contract at a cost of £80. All properties within the district provided with modern conveniences are scavenged three times weekly, while those outwith this category continue to make use of the existing ashpits.

A number of improvements were effected during the year and negotiations are still proceeding for the introduction of further modern conveniences.

Leadhills.—While there is a large number of houses in this district now provided with modern sanitary conveniences, it has not been considered necessary to institute a daily removal system of household refuse. The public ashpits are still in use and the work is contracted for at a cost of £48 per annum.

Lesmahagow.—This work is carried out by the local committee's own servant, which is a great improvement over the system of contracting. There are no ashpits in the district, the household refuse being removed daily.

Ponfeigh.—The work is contracted for at a cost of £124 16/-. During the year modern sanitary conveniences were introduced to all the houses belonging to the Coltness Iron Company in number 158, and when the work of laying on the additional water supply is completed it will allow of these being made full use of. It is hoped that early in the year 1924 the privies and ashpits will be abolished and a daily removal system put into operation.

OTHER THAN SPECIAL DISTRICTS.

Coalburn.—A large number of the houses are owned by the Caprington and Auchlochan Collieries, Limited, and are mostly provided with modern conveniences. There are no ashpits in use at these properties, the dustbins being emptied at the owners' expense.

The work of emptying the dustbins in use at the new houses under the Committee's housing scheme, is carried out by contract; but as there is now a large number of private properties with modern conveniences, the formation of a special scavenging district would allow of a general daily removal system and the consequent removal of many ashpits. It is hoped the Committee will adopt this suggestion.

Brocketsbrae.—Towards the latter end of the year under review, the Committee gave careful consideration to a proposal to form this village into a scavenging and drainage district, but owing to the small valuation of this district it was decided to defer the matter meantime.

In view of the close proximity to Lesmahagow, it might be possible for that Committee to extend the district so as to include this village for the purposes of scavenging.

It is hoped this matter will receive further consideration.

Lighting.

SPECIAL LIGHTING DISTRICTS.

There is no addition to the number of special lighting districts enumerated in last year's Annual Report, which number remains at 5 and includes the following areas: Carluke, Crosslaw, Douglas, Law, and Lesmahagow.

The question of arranging for the necessary electric power for the village of Law has not yet been finally adjusted.

Nothing of outstanding interest falls to be reported regarding any of the other special districts. A full service has been maintained throughout the lighting season.

SPECIAL DISTRICTS.

The special districts for the purposes of water supply, drainage, scavenging and lighting are shown in the following table. The rates of assessment (half proprietor, half tenant) for the year 1923-24 are also shown. A blank in the assessment column means that no district has been formed for the special purposes indicated.

District			Water	Drainage	Scavenging	Lighting	Total Assessment
Blackwood,	—	—	2/1	2/3	4½d.	—	4/8½
Braidwood,	—	—	11½d.	6d.	—	—	1/5½
Carluke,	—	—	1/-	6d.	4½d.	5½d.	2/4
Carnwath,	—	—	1/4	1/-	4½d.	—	2/8½
Carstairs Junction,	—	—	1/4	—	4½d.	—	1/8½
Carstairs Village,	—	—	1/8	<i>a</i>	1/-	—	2/8
Crawford,	—	—	1/6	—	—	—	1/6
Crosslaw,	—	—	—	1d.	2.4d.	4d.	7.4d.
Douglas,	—	—	1/1	3½d.	7d.	3½d.	2/3
Forth,	—	—	3/3	—	8½d.	—	3/11½
Haywood,	—	—	—	—	10½d.	—	10½d.
Kirkfieldbank,	—	—	1/7½	—	—	—	1/7½
Law,	—	—	5½d.	3d.	3d.	<i>a</i>	11½d.
Leadhills,	—	—	—	—	6d.	—	6d.
Lesmahagow,	—	—	1/0½	1/1½	7½d.	3½d.	3/1
Coalburn,	—	—	1/0½	3/1	—	—	4/1½
Ponfeigh,	—	—	1/9½	4½d.	8d.	—	2/10
Roberton,	—	—	2/-	—	—	—	2/-
Symington,	—	—	1/3	<i>a</i>	—	—	1/3
Thankerton,	—	—	10d.	3½d.	—	—	1/1½

a District formed but not yet in operation.

Nuisances.

59 complaints were received in the course of the year. The subject of complaint in each case was carefully enquired into and where necessary steps were taken to secure the discontinuance or abatement of the nuisance.

In addition to these a great many inspections were made with a view to the detection of nuisances, and as a result 95 intimations were served upon the authors under Section 19 of the Public Health (Scotland) Act, 1897.

Over and above this number in many instances the existence of nuisances was brought to the notice of the authors verbally and remedial measures were undertaken without further intimation. It was not found necessary to have statutory notices served under Section 20 in respect of the non-abatement of any nuisance.

Coal Mines Act, 1911.

A notice was received from H.M. Inspector of Mines for this district intimating the abandonment of No. 2 Woodhall Mine, situated at Braidwood in the parish of Carluke, and directing attention to the provisions of Section 26 of the 1911 Act, requiring the erection of suitable fencing or other means sufficient to prevent accident.

On inspection it was found that while the main entrance to the mine had been filled in, there remained two deep holes or depressions, presumably due to subsidence, which were considered such as to constitute a menace to safety.

The agents were communicated with, and their reply was in the following terms: . . . "We do not understand why the holes in the field at St. Oswald's Chapel constitute a menace to public safety, as they are on property which is not open to the public in any way and which is properly enclosed. At the same time we have to inform you that the holes are to be filled up by the tenant of St. Oswald's Chapel in order that he may cultivate the field as heretofore.

"The working which is described above is not in our view a mine, but merely an excavation which was made for the purpose of ascertaining whether there were minerals which could be worked; and after the shallow holes have been filled up the field will be cultivated as heretofore."

Public and Private Slaughterhouses.

Within the district of the Upper Ward there are four public and seven private slaughterhouses, which include a large sheepery.

The former are situated at Carluke, Douglas, Forth, and Lesmahagow; and the latter in the parishes of Carnwath (2), Carmichael (1), Crawford (2), Crawfordjohn (1), and Symington (1).

These premises were regularly inspected.

During the year the Scottish Board of Health issued the Public Health (Meat Inspection) Regulations (Scotland) 1923, together with schedules of instructions with reference to methods of inspection, disposal, etc.

Copies of these were sent out to each slaughterhouse and the terms of the regulations are being adhered to.

Under the above regulations the Board require a return showing (1) the number of animals slaughtered, (2) the number of carcasses inspected, and (3) the number and weight of carcasses seized.

I might mention that hitherto in the abbatoirs in the Upper Ward we have had no means of weighing; but it is desirable to introduce suitable apparatus in order that this information may be easily available.

Carluke Abattoir.—As will be seen from the appended record of animals slaughtered there is a large business done here. Two whole time servants are employed and the premises are admirably managed.

In view of the large volume of work done and the added requirements of the Board of Health as to weighing, etc., it will be necessary to extend the premises so as to provide the following additional accommodation, viz: Cooling Room, Condemned Meat Room, and suitable weighing facilities.

At present the killing booths serve also as hanging or cooling-rooms, and a good deal of congestion occurs, particularly during the first three days of the week.

These premises are particularly well adapted for such an extension.

Douglas Abattoir.—The number of animals dealt with here is comparatively small and the quality of meat is usually of a high standard.

With reference to the provision of means of weighing carcasses, I would suggest that some form of spring balance might serve the purpose in this case.

Forth Abattoir.—This abattoir is managed by a part-time superintendent, which arrangement, owing to the comparatively small amount of business done, is quite satisfactory. The premises are kept in a very cleanly condition.

The offal cart is emptied as required by the Committee's scavenging officer; the manure is carted out to a farmer in the vicinity, who pays an annual sum of £2 10/- for same.

As in the case of the Douglas Abattoir the provision of a spring balance for weighing carcasses might serve the purpose here.

Lesmahagow Abattoir.—There is a fairly large business done here and the accommodation available is more than sufficient for the requirements of the district. It is desirable that some suitable means of weighing be provided here also.

The following tables give a record of (a) the animals killed and dues collected; and (b) the carcasses totally destroyed or partially condemned during the year in the various public slaughter-houses.

RECORD OF ANIMALS KILLED AND DUES COLLECTED
DURING 1923.

«Slaughter-House.	Bullocks	Cows	Calves	Sheep	Swine	Total	Dues Collected.
Carluke, —	882	181	3,593	1,205	2,984	8,845	£299 9 2
Douglas, —	221	.....	.....	276	14	511	43 1 0
Forth, —	322	.....	.....	286	89	697	62 5 8
Lesmahagow,	503	328	5	905	176	1,917	163 14 10
<hr/>							
Totals, —	1,928	509	3,598	2,672	3,263	11,970	£568 10 8
<hr/>							

CARCASES TOTALLY OR PARTIALLY CONDEMNED DURING THE YEAR 1923.

	CATTLE.				CALVES.		SHEEP.	SWINE.		
	Complete Carcases	Part Carcases	Heads	Internal Organs	Complete Carcases	Internal Organs	Internal Organs	Complete Carcases	Heads	Internal Organs
Slaughter-House										
Carlukc, -	20	7	26	135	10	26	1	6	115	89
Douglas, -	....	2	.....	1	....	....	....	....	....	....
Forth, -	....	1	1	3	....	....	....	....	....	....
Lesmahagow, 4	7	3	4	....	....	....	....	....	....	....
Totals,	24	17	30	143	10	26	1	6	115	89

Offensive Trades.

Two businesses conducted in the Upper Ward fall to be included in this category. These are (1) Knacker's Yard at Whitelees, Lanark; and (2) Bone De-greasing Plant at Braidwood.

Knacker's Yard.—In the month of June, complaint was again made of the polluted condition of the burn which receives the drainage from this business. The complainers alleged that the pollution was caused by animal matter discharged into the burn from this source and particularly during warm weather proved most offensive.

A joint report was prepared and submitted by the Medical Officer of Health and the Sanitary Inspector on the matter which showed that a very small volume of drainage was discharged into this ditch from the Knackery, but with a view to obviating further complaint the Committee instructed the officials to arrange for the licence-holder putting in a small tank to intercept any solid matter which might be discharged from the premises.

Bone De-greasing Plant.—The buildings are part of the old Nellfield Brickwork near Braidwood Station, and the premises occupied are well adapted for the conduct of such a business.

The following is a brief description of the methods employed :

In this process of fat-extraction, the bones are first crushed, then put into digestors and treated with benzine, thus dissolving

the fat. From these digestors the benzine with the fat in solution is syphoned off at stated intervals. Afterwards the liquid is gently heated and the benzine vapourised, leaving the fat extracted as a residue. The vapourised benzine is then led to a condenser where it is collected and used again in the process. No vapours are allowed to escape from the plant during the process of fat extraction.

Schools.

There are within the Upper Ward area 51 public schools besides two connected with Smyllum Orphanage. These schools were visited when necessary.

During the year considerable alterations and improvements were carried out to the existing school at Douglaswater. A new (semi-temporary) school at Lesmahagow, comprising 5 class-rooms, gymnasium, staff-room, etc., was completed in the course of the year and is now in use.

Workshops.

The registered workshops in the district, including bake-houses, numbered 273, and are classified as under :—

Dressmakers and Tailors,	80	Milliners,	—	—	5
Boot and Shoe Makers,	— 38	Blacksmiths,	—	—	39
Joiners and Cabinetmakers,	50	Saddlers,	—	—	4
Bakehouses,	— — — 23	Miscellaneous,	—	—	34

89 inspections were made. 5 notices relating to irregularities under the Factory and Workshops Act were served. The contraventions dealt with were :—

1. Corner of workshop damp owing to proximity of leaking rainwater barrel outside.
2. Drain of sanitary convenience leaking. Walls and ceiling of workshop dirty.
3. Drain of sanitary convenience choked.
4. No flush water to sanitary convenience.
5. No separate convenience for female workers.

The defects complained of in each case were remedied, a separate "wash-down" water-closet being introduced to the last-mentioned workshop.

Dairies, Cowsheds and Milkshops.

Milk (Special Designations) Order (Scotland) 1923.

During the year to 31st December, 1923, the Local Authority granted licences to 9 farmers. Seven of these related to "Grade A" (Tuberculin-tested) (Producer's Establishment), while 2 were "Grade A" (Producer's Establishment) only.

Two of the licence-holders had their byres improved in respect of ventilation, lighting, cubic capacity, etc., etc.

Throughout the district many byres were modernised, no doubt with a view in the future to having the dairy stock brought up to the required standard to procure a "Grade A" licence.

Veterinary Inspection of Dairy Herds.—The number of dairy herds inspected during the year was 610, comprising 10,232 cows.

Samples of milk were taken for bacteriological examination, the results of which are dealt with by the Medical Officer of Health in his report.

Diseases of Animals Act, 1894.—During the year 11 outbreaks of Anthrax in cattle were reported to the Public Health Department by the Superintendent of Police for the District.

A visit was paid to each of the infected farms and enquiries were made regarding the health of the inmates; but in no case was it found necessary to report any suspicious illness to the Medical Officer of Health.

Burial Grounds.

No complaint was received as to any burial ground in the district.

One interment was carried out at the instance of the Local Authority under Section 69 (1) of the Public Health (Scotland) Act, 1897.

Accommodation for Seasonal Workers.

By-laws made by the District Committee *re* Provision of Proper Accommodation for Seasonal Workers such as Fruit-pickers, Potato-workers, Harvesters, etc.

During the current season, in accordance with the above by-laws, intimation was given to the Local Authority by employers in 29 instances of the intention to accommodate seasonal workers.

Each farm was visited, the premises to be occupied measured, and the farmer instructed as to the number of persons he could accommodate. Every farmer was furnished with a copy of the By-laws, and on the whole the accommodation provided was fairly satisfactory. Undoubtedly the farmers in this district are gradually giving effect to the By-laws, and I believe that in the course of another year or so all the requirements of the By-laws will be met.

The Sanitary Inspector submitted a report to the Public Health Committee stating that several farmers or employers had failed to give due intimation to the Local Authority that they intended to accommodate workers on their premises, and it was only on visiting other farms that these irregularities were discovered.

When visiting the above-mentioned farms it was learned that one farmer had not only housed workers to lift his own potatoes but had also accommodated workers to oblige other farmers in the surrounding district. The accommodation provided was not considered satisfactory.

In each case failure to notify appeared to be due to a misunderstanding between the wholesaler and producer as to which of them was obliged to give intimation.

I might mention that on the 31st October one of the inspectors of the Board of Health inspected a number of the farms in the district where potato workers had been housed, and while satisfied that an effort was being made to meet the requirements of the By-laws, she pointed out that in certain cases there was room for improvement and that the Board of Health were very anxious that the By-laws should be strictly administered. She also mentioned that it was essential that intimation of the intention to house workers should be given to the Local Authority.

The Committee, after careful consideration, instructed the District Clerk to communicate with the farmers at fault and draw their attention to the serious nature of this offence. It was also resolved that a warning should be inserted in the local newspapers.

Infectious Diseases.

3875 visits of enquiry were paid ;
 529 notices issued to headmasters ;
 337 houses or premises disinfected ;
 241 patients removed to hospital.

Fuller details as to infectious diseases will be found in the report of the Medical Officer of Health.

WILLIAM PATERSON,
District Sanitary Inspector.

COUNTY OF LANARK.
DISTRICT OF THE UPPER WARD.
(Including the Burghs of Lanark and Biggar).

Midwives (Scotland) Act, 1915.

SEVENTH
ANNUAL REPORT
BY THE
MEDICAL OFFICER OF HEALTH.

1923.

Midwives (Scotland) Act, 1915.

ANNUAL REPORT, 1923.

The Medical Officer of every Local Authority shall report annually to that Authority on the administration of the Act within the District of the Local Authority, and he shall transmit a copy of such report to the Central Midwives Board and to the Local Government Board for Scotland.—Section 23.

STAFF.

Administrative Officer.

JOHN T. WILSON, M.D., D.P.H.

Executive Officer and Inspector of Midwives.

ALEXANDER FRASER, M.D., D.P.H.

Nurse Health Visitors and Assistant Inspectors of Midwives.

(All hold the C.M.B. Certificate.)

HELEN MACGREGOR.

ANNIE H. BELL.

HELEN O. LOCHHEAD.

Practising Midwives.—*Upper Ward District.*—15 midwives notified their intention to practise in the Upper Ward District.

Burgh of Lanark.—2 midwives notified their intention to practise in the Burgh of Lanark.

Burgh of Biggar.—No midwives are practising in the Burgh of Biggar.

Both in the Upper Ward District and in the Burgh of Lanark, these midwives are in *bona fide* practice and certified under the Act, though, however, many of them practise seldom by themselves, preferring to attend chiefly on Doctors' cases.

Attendances at Confinements.—*Upper Ward District.*—The total number of births allocated to the district amounted to 1144, of which 1119 were registered in the district.

Notifications.—1149 births were notified, of which 1116 were live births, and 33 still-births. From these notifications it was found that in 1022 cases a medical practitioner was in attendance; in 108 a certified midwife; and in 18 an uncertified midwife. The percentage of births registered in the district which were attended by certified midwives was 9.6.

Burgh of Lanark.—After correction for transfers the number of births belonging to the Burgh was 156, of which 152 were registered in the Burgh.

Notifications.—164 notifications of birth were received, of which 159 were live births, and 5 still births. From these notifications it was found that in 131 cases a medical practitioner was in attendance; in 30 cases a certified midwife, and in 3 cases an uncertified midwife. The percentage of births registered in the Burgh which were attended by certified midwives was 19.7.

Burgh of Biggar.—After correction for transfers the number of births allocated to the Burgh was 16.

Notifications.—14 notifications of birth were received, all of which were attended by medical practitioners.

Still-births.—In the Upper Ward District 33 still-births were notified. In 29 of these cases a medical practitioner was in attendance, and in 4 cases a certified midwife.

In the Burgh of Lanark 5 still-births were notified, 4 of which were attended by a medical practitioner, and 1 by a certified midwife.

In the Burgh of Biggar no still-births were notified.

Inspection of Midwives.—*Upper Ward.*—The routine inspections made during the year showed that the personal conditions were satisfactory in 11 cases and fair in the remaining 4. A register was kept in 14 instances, 1 midwife attended solely at doctors' cases.

Puerperal Septicaemia.—*Upper Ward.*—During the year 1 case was notified. The case was of a slight nature and made a good recovery.

No cases occurred in the Burghs of Biggar or Lanark.

Ophthalmia Neonatorum.—*Upper Ward.*—During the year 2 notifications were received. Both cases were notified by the medical practitioner in attendance. Visits were made by the Nurse Health Visitor and the cases were classified as extremely mild. Both cases made complete recovery with no impairment to vision.

Burgh of Lanark.—No cases were notified during the year.

Burgh of Biggar.—No cases were notified during the year.

Medical Assistance.—*Upper Ward.*—1 notification of the calling in of medical assistance was received during the year, the case being one of convulsions.

Liability to be a source of Infection.—No notifications were received.

Form of having laid out a dead body.—3 notifications were received.

Form of notification of still-birth.—3 notifications were received.

Offences.—Nil.

BURGH OF BIGGAR.

(Area, 62 Acres).

REPORT

OF THE

MEDICAL OFFICER OF HEALTH AND OF
THE SANITARY INSPECTOR.

1923.

Report of the Medical Officer of Health.

STATISTICS.

The **population** as estimated to the middle of the year 1923, was 1400.

The **births** registered in the Burgh amounted to 17, and after correction for transfers numbered 16—males, 10 ; females, 6, giving a birth-rate of 10.7 per 1000 of the population. Of these births 1 was illegitimate, giving an illegitimate rate of 6.25 per 100 births.

The **deaths** registered in the Burgh numbered 13, and after correction for transfers amounted to 16—males, 7 ; females, 9—giving a death-rate of 10.7 per 1000 of the population.

The following table shows the cause and age period at death :

Cause of Death.	25-45	45-65	65 and over.	Total.
Pulmonary Tuberculosis -	-	1	-	1
Abdominal „ -	-	1	-	1
Other „ -	-	1	-	1
Malignant Diseases -	-	1	2	3
Cerebral Haemorrhage -	-	2	1	3
Cardiac Disease -	-	-	2	2
Bronchitis -	-	-	1	1
Other Respiratory Diseases	1	-	-	1
Other Defined Diseases -	-	-	3	3
Total -	1	6	9	16

PREVALENCE OF INFECTIOUS DISEASE.

Notifiable Diseases.—6 cases of infectious disease were notified, a decrease of 1 in comparison with the number notified during the previous year. The notifications were as follows:—Scarlet fever, 3; diphtheria, 1; chicken-pox, 2. The cases removed to Hospital numbered 3—Scarlet fever, 2; diphtheria, 1. These cases were treated in the Burgh Fever Hospital, Lanark. Visits of inspection were made to the homes where the cases occurred, and disinfection carried out. All precautions to prevent the spread of the disease were taken.

Tuberculosis.—3 cases were notified during the year—Pulmonary 1; Non-pulmonary, 2.

Institutional Treatment.—No cases required admission to the District Sanatorium, Roadmeetings.

Domiciliary Treatment.—During the year 1 case received domiciliary treatment.

Deaths from Tuberculosis.—3 deaths occurred from Tuberculosis during the year—Pulmonary, 1; abdominal, 1; other forms, 1.

MATERNITY AND CHILD WELFARE.

The Burgh is included in the Upper Ward Scheme. The District Nurse acts as Nurse Health Visitor for the Burgh and the surrounding county district.

Notifications of Birth.—15 notifications were received, and the attendant at birth in each case was a medical practitioner. No still-births were notified.

Infantile Mortality.—No deaths of children under 1 year were recorded, thus the infantile mortality rate for the year is nil.

Necessitous Cases.—During the year assistance was granted to 1 case.

Hospital Treatment.—There were no admissions to Hospital during the year.

VENEREAL DISEASES.

The Burgh is included in the Scheme of the Joint-Committee for the prevention and treatment of venereal disease. No cases occurred during the year.

GENERAL SANITATION.

Water supply, drainage and sewage disposal, scavenging and other matters are referred to in the report of the Sanitary Inspector.

Workshops.—These are dealt with in the report of the Sanitary Inspector.

Food and Drugs Act.—The County Council administer these Acts within the Burgh.

The **Public Slaughter-house** is situated outside the Burgh boundary. A record of the animals killed and dues collected is given in the Sanitary Inspector's report.

JOHN T. WILSON,

Medical Officer of Health.

Report of the Sanitary Inspector.

The **water supply** for the Burgh is obtained from King's Beck Burn, situated about seven miles south of Biggar. The Council made their annual inspection to the inlet of the dam in the month of September last, and were satisfied that the supply was adequate for all purposes.

The **Drainage and Sewage Systems** are dealt with in two portions, east and west. The sewage from the latter, after passing through three settling tanks, is allowed to run in open channels and spread over the most part of ten acres of land, the property of the Town Council. The east portion passing through two settling tanks, is run in open channels over about six acres of land which is owned by the Town Council.

The present system of sewage disposal continues to prove very satisfactory.

In connection with the scavenging system, the ashes and night soil from dry closets are removed on alternate days, that is on Monday, Wednesday, and Friday from the west end of the Burgh, and on Tuesday, Thursday, and Saturday from the east end. On Friday there is a general collection of rubbish. The whole of the rubbish is deposited in a coup near to the Public Park about one mile outside the Burgh.

During the year 6 water closets have been erected, and the use of 4 dry closets discontinued.

Two new houses were erected during the year, and two in a dilapidated condition are unoccupied.

Nuisances.—4 cases were dealt with during the year. After due intimation having been given, they were removed by the owners or tenants, no legal proceedings being necessary.

Mention was made in last year's report of a complaint of a bad smell said to arise from a fish shop, and reported by the tenant of the house adjoining the shop. This complaint again recurred. The smell was said to be felt at the front corner of the house adjacent to the shop, and due investigation was made. The drainage of the house appeared to be in good order, and on lifting the floor of the upper room next to the shop, the body of a dead rat was found. Since then no further complaint has been received.

The **High School** was visited frequently, and found clean and in good order.

Visits (64) of inspection were made to tents and living vans—local and temporary. These were found to be clean and tidy.

Cowkeepers and Sellers of Milk.—There are two persons registered within the Burgh. Inspections (54) were made, and the cowsheds, shops, and dairies were all found in good order. 23 cows are kept.

Visits of inspection (34) were made to **pig-styes**, and all were found to be in good order.

Common Lodging-Houses.—There are none within the Burgh.

Burial Ground.—The burial ground is situated partly within the Burgh and partly in the County area. It is well kept. The grass is frequently cut, and a good supply of water is given by the permission of the Town Council.

Infectious Disease.—The cases of infectious disease occurring in the Burgh are noted in the report of the Medical Officer of Health. Inquiries were made as to the sources of infection and frequent visits were made to the houses affected. Thorough disinfection of the houses and bedding was carried out.

Workshops.—There are fifty workshops in the Burgh. Visits of inspection (56) were made at different intervals. There are no underground workshops in the Burgh. The following is a list of the different workshops and the number of persons employed :—

Workshops.				Number of Employees.				
				No. of Shops.	Males.	Females.	Apprentices.	Total.
Dressmakers and Milliners,				11	5	28	.....	33
Tailors, — — —				5	12	.....	.....	12
Bakers, — — —				5	16	12	5	33
Cabinetmakers, — — —				2	5	3	2	10
Jewellers, — — —				3	5	1	1	7
Harness-makers, — — —				1	4	.....	1	5
Blacksmiths, — — —				2	5	.....	1	6
Shoemakers, — — —				5	10	3	1	14
Laundries, — — —				2	.....	4	.....	4
Engineers, — — —				5	11	1	3	15
Plumbers, — — —				2	11	.....	2	13
Painters, — — —				3	20	.....	5	25
Joiners, — — —				4	18	.....	3	21
Total, — — —				50	122	52	24	198

Slaughter-house.—The slaughter-house is situated outside the Burgh boundaries. Visits of inspection were frequent, and the premises were found to be kept in a clean and tidy condition. The record of animals killed (which included 23,593 sheep, slaughtered for the London markets) and the dues collected is as follows:—

Cattle.	Calves.	Swine.	Sheep.	Total.	Dues Collected.
660	200	391	25,280	26,531	£278 18 5

Record of Inspections Made:—

Place.	Number of Inspections.				
High School, - - -	-	-	-	-	56
Workshops, - - -	-	-	-	-	56
Tents and Vans, - - -	-	-	-	-	64
Cowsheds, Dairies, Milkshops,	-	-	-	-	54
Pig-styes, - - -	-	-	-	-	36
Fish Shops, - - -	-	-	-	-	42
Slaughter-house - - -	-	-	-	-	57
					<u>365</u>

PETER BROWN,
Sanitary Inspector.



COUNTY OF LANARK.

DISTRICT OF THE MIDDLE WARD.

ANNUAL REPORT
OF THE
MEDICAL OFFICER OF HEALTH
AND OF THE
SANITARY INSPECTOR,
1923.

Medical Officer of Health,	-	County Offices, Hamilton.
Asst. Medical Officer of Health,	}	District Offices, Hamilton.
Sanitary Inspector,		

ROBERT ANDERSON, PRINTER, GLASGOW.

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STAFF.

PUBLIC HEALTH DEPARTMENT.

MIDDLE WARD DISTRICT.

County and District Medical Officer—

JOHN T. WILSON, M.D., D.P.H.

Tuberculosis Officers and Assistant M.O.H.—

J. THOMSON DICK, M.B., Ch.B., D.P.H.

JOSEPH R. SUTHERLAND, M.B., Ch.B., D.P.H.

J. M'CALLUM LANG, M.D., D.P.H.

JOHN A. C. GUY, M.B. Ch.B., D.P.H.

Assistant M.O. under Child Welfare Scheme—

HENRY J. THOMSON, M.D.

G. MACLEOD MILLAR, M.B., Ch.B.

Consulting District Sanitary Inspector—

JAMES DOBSON.

District Sanitary Inspector—

JOHN MILLAR.

Inspector of Buildings—

WILLIAM MARTIN.

District Meat Inspector, etc.—

ALEX. CAMERON.

Superintendent of Nurses—

Miss J. CHAPMAN.

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STAFF.

PUBLIC HEALTH HOSPITALS.

MIDDLE WARD DISTRICT.

Medical Officer—

JOHN T. WILSON, M.D., D.P.H.

<i>County Hospital, Motherwell,</i> (150 beds)	- - -	Dr. JOHN REID, Resident Physician-Superintendent. Dr. THOS. HUNTER, Resident Assistant Physician. Miss M. THOMSON, Matron.
<i>Lightburn Joint-Hospital, Snettleston,</i> (60* beds)	- - -	Dr. J. S. M'LEAN GRAY, Resident Physician-Superintendent. Miss E. TOWNSEND, Matron.
<i>County Sanatorium, Stonehouse,</i> (60 beds)	- - -	Dr. J. R. SUTHERLAND, Resident Physician-Superintendent. Dr. A. H. M'LEAN, Visiting Physician. Miss A. SHORE, Matron.
<i>County Sanatorium, Shotts,</i> (52 beds)	- - -	Dr. JOHN A. C. GUY, Physician-Superintendent. Dr. J. M'MILLAN, Visiting Physician. Miss ISA KEIR, Matron.
<i>County Sanatorium, Uppertown,</i> (46 beds)	- - -	Dr. J. T. DICK, Physician-Superintendent. Dr. RICHARD RAE, Visiting Physician. Miss E. C. STEWART, Matron.
<i>Hairmyres Colony,</i> (232 beds)	- - -	Dr. JAMES JOHNSTONE, Resident Physician-Superintendent. Dr. Arthur Anderson, Resident Assistant Physician. Miss I. W. GRAY, Matron.
<i>County Maternity Hospital, Bellshill,</i> (48 beds)	- - -	Dr. H. J. THOMSON, Physician-Superintendent. Miss A. CRAWFORD, Matron.
<i>County Convalescent Home, - Calderbank House,</i> (30 beds)	- - -	Dr. G. MACLEOD MILLAR, Physician-Superintendent. Miss G. M'NEILL, Matron.
<i>Blantyre Hospital,</i> (10 beds)	- - -	Dr. H. J. THOMSON, Visiting Physician. Miss G. STEVENSON, Matron.
<i>Dalsert Hospital, -</i> (10 beds)	- - -	Dr. J. R. SUTHERLAND, Visiting Physician. Miss H. J. MORE, Matron.

* 15 beds owned by the Middle Ward District Committee.

COUNTY OF LANARK.

DISTRICT OF THE MIDDLE WARD.

(Area, 186,118 acres.)

Report by the Medical Officer of Health
FOR THE YEAR 1923.

I.—VITAL STATISTICS.

The **Area** of the district at the close of the year was **186,118** acres.

The acreage and population of each parish is stated in Table B.

The density of population was 1·25 persons to the acre.

The **population** at the middle of the year has been estimated, from local sources, at **232,700**, an increase of 7,910.

The number of inhabited houses in the District, according to the Valuation Roll, was **44,020**, an increase of 1,513 compared with the year 1922. The number of uninhabited houses, according to the Roll, was 554, compared with 706 the previous year. This number is very largely made up of houses which, at the time the Assessor made his return, were being erected both by the Local Authority and by private enterprise, but which were not ready for occupancy, though likely to be occupied before the end of the year.

Statistical Tables.—Table A shows the birth-rate and death-rate per thousand of the population, and the infantile deaths per thousand births. It also shows the birth and death rates and infantile deaths for each year since 1919 and the average rates for the decennial periods between 1891 and 1920.

Table B shows the acreage, births, and deaths for the year in each parish and registration district, with the deaths classified according to cause, and Table C shows the deaths classified according to cause and age periods.

The **Births** registered numbered **6,218**—males, 3,210; females, 3,008. 325, or 5·2 per cent., were illegitimate. The birth-rate per 1,000 of the population was **26·72**, which is the lowest rate ever recorded in the Middle Ward District. The lowest rate previously recorded, viz., 28·3, occurred in 1922, and reference to Table A shows that for many years the rate has undergone an almost unbroken fall.

The **Deaths** during 1923 numbered **2,620**, as compared with 2,936 in 1922; the respective death-rates for the two years being **11·25** and 13·0 per thousand. The death-rate of 11·25 is the lowest ever recorded, and the fall in the rate is largely accounted for by decreased mortality in respect of four diseases, viz., measles, pneumonia, influenza, and bronchitis, the deaths from which, compared with the previous year, were fewer by 102, 106, 83, and 81 respectively.

The deaths of infants under one year numbered 481, which is equivalent to 77·3 deaths per 1,000 births. This infantile death-rate is the lowest yet recorded in the District. The deaths are referred to in detail in the portion of the Report dealing with Maternity and Child Welfare.

The number of births exceeded the deaths by 3,598, which constitutes the **natural increase** in population.

TABLE A.—BIRTH-RATES AND DEATH-RATES PER 1000 OF THE POPULATION. INFANTILE DEATHS PER 1000 BIRTHS.

Year.	Births.	Birth-rate.	Nett Deaths.	INFANTS UNDER 1 YEAR.		
				Death-rate.	Deaths.	Death-rate.
1891 } to 1900 }	62,323	39·1	29,080	18·1	8,098	129·9
1901 } to 1910 }	74,121	38·9	31,188	16·3	9,212	124·2
1911 } to 1920 }	68,201	32·5	30,005	14·3	7,547	110·4
1919	6,410	29·8	2,911	13·5	648	101·1
1920	7,562	35·0	2,891	13·3	763	100·9
1921	7,023	32·1	2,660	12·1	631	89·9
1922	6,364	28·3	2,936	13·0	650	102·1
1923	6,218	26·7	2,620	11·25	481	77·3

PUBLIC INSTITUTIONS SITUATED WITHIN THE DISTRICT WHERE SOME PERSONS NOT BELONGING TO THE DISTRICT DIED AND WHOSE DEATHS ARE EXCLUDED.

Name of Institution.	Parish where situated.	Population. Police Census, Dec., 1923.	DEATHS.	
			Total during 1923.	Allocated to the Middle Ward District.
Kirklands Asylum,	- Bothwell,	293	17	5
Hartwood Asylum,	- Shotts,	1,277	84	29
Airbles House, -	- Dalziel,	140	7	2
Thrashbush Home, -	- New Monkland,	125	15	3
Omoa House, -	- Shotts,	206	49	33
County Hospital, Motherwell,	- Dalziel,	323	112	105
County Sanatorium, Stonehouse, -	- Stonehouse,	105	10	10
County Sanatorium, Shotts, -	- Shotts,	69	16	15
County Sanatorium, Uppertown, -	- New Monkland,	60	15	15
Hairmyres Colony, -	- East Kilbride,	258	1	—
County Hospital, Bellshill, -	- Bothwell,	66	41	33
County Convalescent Home, Calderbank House, -	- Old Monkland,	50	4	2
Blantyre Hospital, -	- Blantyre,	25	16	14
Dalserf Hospital, -	- Dalserf,	18	4	4
Blantyre Cottage Hospital, -	- Blantyre,	5	3	3
St. Vincent Home for Deaf and Blind Children, -	- Old Monkland.	215	—	—
Maternity Home Hospital, Airdrie, -	- New Monkland,	22	7	1
Collisdene Nursing Home. Strathaven, -	- Avondale,	14	1	1
Allanton House, Allanton, -	- Cambusnethan,	27	1	1
Homœopathic Hospital. Mount Vernon, -	- Old Monkland,	28	5	—
Total, -		3,326	408	276

PUBLIC INSTITUTIONS SITUATED OUTWITH THE DISTRICT WHERE SOME PERSONS BELONGING TO THE DISTRICT DIED AND WHOSE DEATHS ARE INCLUDED.

<i>General Hospitals.</i>		<i>Poor Law Institutions.</i>	
Glasgow Royal Infirmary,	- 148	11 Bothwell Road, Hamilton,	- 16
Glasgow Western Infirmary,	- 18	Hospital Street, Coatbridge,	- 6
Glasgow Victoria Infirmary,	- 12		
Edinburgh Royal Infirmary,	- 6		
<i>Infectious Hospitals.</i>			
Lightburn Hospital,	- - 14	All other Institutions,	- - 112
Ruchill Hospital,	- - - 3		
	<hr/> 201		<hr/> 134
<hr/>			
TOTAL, 335			

DEATHS IN RELATION TO AGE AND CAUSE.—Table C shows the deaths classified according to age and cause. The deaths are here arranged in recognised age-periods, and the percentage proportion of deaths at each age period is given :—

Infant period,	under 1 year,	481 deaths or 18·36 per cent.
Under school age,	1·5 years, -	323 „ 12·33 „
School age,	5-15 „ -	136 „ 5·19 „
Adolescent,	15-25 „ -	151 „ 5·76 „
Early mature period,	25-45 „ -	300 „ 11·45 „
Late „ „	45-65 „ -	557 „ 21·26 „
Post „ „	65 years and upwards, -	672 „ 25·64 „

Reference to Table A shows that the infantile mortality rate decreased from 102·1 in 1922 to 77·3 in 1923, and that the general death-rate also showed a decline from 13 to 11·25 per thousand of the population in respect of those two years. If, however, the above table be compared with that for 1922, it will be found that, while the percentage proportion of deaths for all ages over 5 years has increased, the percentage deaths of infants under one year and children of 1·5 years has fallen from 22·14 per cent. to 18·36 per cent. in the former, and from 17·20 per cent. to 12·33 per cent. in the latter. The greatest fall occurred in the age period 1·5 years, and was chiefly due to the decrease in mortality from measles and pneumonia.

TABLE B.—MIDDLE WARD.—Year 1923.—Population, Acreage, Births, and Deaths* in each Registration District, with Deaths classified according to cause.

REGISTRATION DISTRICTS.	POPULATION.		ACREAGE.	BIRTHS.	DEATHS.		Enteric Fever.	Tetanus.	Smallpox.	Chickenpox.	Measles.	Scarlet Fever.	Whooping-Cough.	Diphtheria.	Influenza.	Erysipelas.	Other Septic Diseases.	Cerebro Spinal Fever.	Pulmonary Tuberculosis.	Meningeal Tuberculosis.	Abdominal Tuberculosis.	Other Tuberculosis.	Malignant Diseases.	Rheumatic Fever.	Encephalitis Lethargica.	Meningitis (Simple).	Cerebral Hemorrhage.	Convulsions.	Other Nervous Diseases.	Organic Heart Disease.	Bronchitis.	Pneumonia.	Laryngitis.	Other Respiratory Diseases.	Diarrhea.	Appendicitis and Typhlitis.	All Liver Diseases (not Malignant).	Other Digestive Diseases.	Nephritis and Bright's Disease.	Puerperal Sepsis.	Diseases and Accidents of Pregnancy, &c.	Congenital Malformation.	Premature Birth.	Atrophy, Debility, &c.	Atelectasis.	Injury at Birth.	Suffocation—Overlying.	Syphilis.	Rickets.	Violence.	Suicide.	Other Defined Diseases.	Ill-defined Diseases.	Total.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	Census, 1921.	Estimated to middle of 1923.			Certified.	Uncertified.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Arundale,	5,902	6,300	37,470	119	64	2	2	...	1	1	6	1	4	...	3	8	2	2	1	1	3	2	1	1	1	2	...	17	2	64																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
East Kilbride,	4,787	5,100	23,680	104	51	2	...	1	...	1	1	5	2	2	...	1	6	1	1	2	1	1	4	3	2	...	1	...	51																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Glasford,	1,431	1,400	6,443	37	18	1	1	1	1	1	...	1	1	1	1	...	18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Stonehouse,	4,204	4,400	6,246	113	47	1	1	3	1	...	3	1	4	...	3	5	2	1	1	1	1	47																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
First Division,	46,324	17,200	73,839	373	180	5	...	1	...	5	3	2	2	15	3	...	1	10	1	7	20	6	4	...	1	6	3	2	7	5	1	...	3	6	6	7	1	43	4	180																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Blantyre,	18,154	18,900	3,953	547	213	...	2	5	...	10	...	2	1	1	1	20	4	6	2	17	2	10	2	2	11	2	21	9	1	3	5	4	1	3	1	12	2	1	1	...	10	...	34	5	213																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Bothwell,	19,904	21,600	13,504	529	259	2	...	15	17	4	6	2	23	...	1	1	22	3	11	24	6	26	7	3	1	2	6	2	...	3	3	6	7	4	...	5	33	5	259																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Bellshill,	20,934	22,900		735	308	1	1	6	4	3	1	2	1	18	8	3	5	26	1	2	4	18	1	6	18	8	30	1	2	14	7	2	15	10	4	5	5	11	18	1	14	1	31	2	309																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Holytown,	18,597	20,100	543	188	1	2	1	5	3	6	...	4	...	10	4	2	1	12	1	...	3	6	...	6	15	15	21	...	3	5	1	...	5	5	...	3	4	7	4	1	1	2	6	1	21	3	189																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Cambuslang,	26,130	27,700	5,146	695	304	1	18	1	11	4	1	1	10	1	20	5	5	5	26	4	...	2	11	1	13	25	12	25	...	4	6	3	1	13	5	...	4	3	11	7	2	...	13	...	24	6	304																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Cambusnethan,	12,243	13,200	15,676	314	162	7	...	4	1	8	...	2	...	11	4	...	2	12	2	8	1	5	8	14	11	...	3	3	1	...	7	5	1	4	4	6	5	5	...	17	1	162																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Calderhead,	4,007	4,300		125	54	...	2	3	...	1	2	1	...	2	1	...	1	4	2	...	1	1	2	4	3	3	2	2	...	1	6	3	...	1	1	...	4	1	54																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Dalserf,	4,491	4,700	7,444	137	53	1	1	5	1	3	...	1	...	2	...	1	2	2	3	...	1	4	1	53																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Laribhall,	14,974	15,800		431	179	...	1	1	1	1	1	2	...	9	5	4	1	18	1	...	2	13	2	9	17	8	11	...	3	2	1	6	4	2	1	4	8	6	1	3	10	...	19	2	179																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Dalziel,	2,023	2,100	2,057	41	14	1	2	...	1	1	1	2	3	1	1	15																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
Hamilton,	7,921	8,200	11,775	236	70	1	1	...	2	...	3	3	3	1	4	1	9	2	1	8	2	4	...	1	2	5	...	1</

* These are the Nett or Adjusted Deaths, having been corrected for Institutions and other Transfers in accordance with the Scottish Board of Health's instructions.

Infectious Diseases.—The number of deaths due to infectious diseases which are compulsorily notifiable was 545, made up thus:—

Diphtheria, - - -	24	Pulmonary Tuberculosis,	147
Erysipelas, - - -	8	Tuberculosis (all other	
Scarlet Fever, - - -	22	forms), - - -	123
Typhoid Fever, - - -	5	Pneumonia, - - -	195
Puerperal Sepsis, - - -	17	Cerebro-spinal Fever,	4

The deaths from infectious diseases not compulsorily notifiable amounted to 185:—Whooping-cough, 67; diarrhoea, 73; measles, 45. The prevalence of the various infectious diseases is further referred to in the second portion of the Report.

Respiratory Diseases.—The deaths during the year numbered 385, and the following statistics show the deaths and death-rates of the various forms for the past five years:—

Year.	PNEUMONIA.		BRONCHITIS.		INFLUENZA.		OTHER RESPIRATORY DISEASES.		Total Deaths.
	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	
1918	350	1.65	173	0.81	486	2.29	32	0.15	1,041
1919	308	1.43	193	0.89	256	1.19	27	0.12	784
1920	272	1.25	178	0.82	80	0.37	43	0.19	573
1921	189	0.86	162	0.74	47	0.21	40	0.18	438
1922	301	1.33	204	0.90	121	0.53	36	0.15	662
1923	195	0.84	123	0.53	38	0.16	29	0.12	385

It will be noted from the tables given above that, although the mortality from respiratory diseases has fallen from 662 in 1922 to 385 in the year under review, those diseases play a large part in the causation of death; no fewer than 195 deaths were due to pneumonia. Omitting this disease from the list of those which are compulsorily notifiable, it will be seen that the deaths from respiratory diseases, viz., 385, exceed the deaths, viz., 350, due to all notifiable infectious diseases put together, and are two-and-a-half times as many as the deaths from pulmonary tuberculosis.

TABLE C.—MIDDLE WARD.—1891-1923.—DEATHS CLASSIFIED ACCORDING TO CAUSE AND AGE PERIODS, AND CORRECTED FOR INSTITUTIONS, &c.

Population, 232,700; Acreage, 186,118; Registered Births, { Legitimate, M., 3,056; F., 2,837;
 { Illegitimate, M., 154; F., 171; Total, 6,218.

Deaths under 1 year, { Legitimate, 463.
 { Illegitimate, 18.

CAUSE OF DEATH.		Registered in District.	Transferred from other Districts.	Transferred to other Districts.	Nett Deaths.	NETT DEATHS AT DIFFERENT AGE PERIODS.																			Rates per 1,000 Population.	Registered in Institutions in District.	
						Weeks.					Months.					Years.											
						-1	1-	2-	3-	Total -4	1-	3-	6-	9-	Total -12	1-	5-	10-	15-	25-	35-	45-	55-	65-			75 and over.
All Causes	Certified.	2,460	337	184	2,613	150	35	18	17	220	77	51	64	67	479	322	85	51	151	138	160	228	327	372	300	11.229	408
	Uncertified.	6	1	...	7	2	2	2	1	2	...	20343
Enteric Fever.		3	2	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	2	...	...	...	...	.0214	3
Tetanus.		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Smallpox.		2	...	...	2	...	...	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	.0085	1
Chickeupox.		43	2	...	45	...	...	...	...	...	...	6	7	13	30	2	...	...	...	...	...	...	...	...	...	.1933	1
Measles.		19	3	...	22	...	...	...	...	...	...	...	...	...	13	8	1	...	...	...	...	...	...	...	...	.0945	18
Scarlet Fever.		66	1	...	67	...	...	...	...	...	5	2	6	9	22	42	3	...	...	...	...	...	...	...	...	.2879	1
Whooping-Cough.		20	4	...	24	...	...	...	...	...	...	2	2	4	12	5	2	...	1	...	...	...	...	...	...	.1031	20
Diphtheria.		37	1	...	38	...	...	1	...	1	...	1	...	2	2	...	...	5	3	4	6	6	7	3	...	.1633	1
Influenza.		8	...	...	8	...	...	2	2	2	...	...	...	4	...	...	...	1	...	2	...	1	...	...	...	.0343	3
Erysipelas.		15	21	...	36	...	1	1	1	3	2	...	2	...	7	9	4	5	6	...	1	...	2	2	...	.1547	1
Other Septic Diseases.		4	1	1	4	...	...	...	...	...	...	1	1	2	1	...	...	...	...	1	...	...	...	...	...	.0171	2
Cerebro-Spinal Fever.		164	1	18	147	...	...	...	...	...	...	1	...	1	2	11	4	5	35	33	27	16	11	3	...	.6316	53
Pulmonary Tuberculosis.		51	4	3	52	...	...	...	1	1	...	2	4	6	13	22	7	1	6	2	1	...	...	...	...	.2234	18
Meningeal Tuberculosis.		40	8	5	43	...	...	...	...	...	...	5	1	2	8	18	7	3	4	3	...	...	...	...	...	.1847	21
Abdominal Tuberculosis.		26	4	2	28	...	...	...	...	...	1	...	...	1	2	5	3	2	8	1	3	2	2	...	...	.1203	10
Other Tuberculosis.		179	42	12	209	...	...	...	...	...	...	...	...	...	...	...	1	...	6	6	14	42	63	53	24	.8981	18
Malignant Diseases.		12	2	...	14	...	...	...	...	...	...	...	...	...	...	...	2	1	4	1	3	1	2	...	...	.0601	...
Rheumatic Fever.		2	2	...	4	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1	1	...	...	...	...	.0171	...
Encephalitis Lethargica.		22	5	...	27	...	...	...	...	...	...	3	1	...	4	14	2	3	2	1	...	...	1	...	...	.1160	2
Meningitis (Simple).		149	8	9	148	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	21	33	48	43	.6360	17
Cerebral Hæmorrhage.		17	...	...	17	3	...	...	...	3	2	2	2	2	11	6	...	...	...	...	...	...	...	...	...	.0730	1
Convulsions.		74	7	11	70	...	...	...	...	...	...	...	...	...	...	3	2	1	7	7	9	3	12	20	6	.3008	18
Other Nervous Diseases.		211	9	16	204	...	...	...	...	...	...	...	...	...	...	2	2	2	2	6	9	24	55	61	41	.8766	23
Organic Heart Disease.		130	1	8	123	...	1	1	2	4	5	4	2	6	21	10	2	...	1	1	1	20	23	26	18	.5285	13
Bronchitis.		191	18	14	195	...	1	...	1	2	6	8	14	18	48	48	5	3	6	11	16	23	14	19	2	.8380	39
Pneumonia.		3	...	...	3	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	.0128	...
Laryngitis.		20	8	2	26	...	1	...	...	1	...	...	...	...	1	3	2	1	1	4	...	2	5	5	2	.1117	5
Other Respiratory Diseases.		70	4	1	73	1	3	1	...	5	15	13	17	7	57	16	...	...	...	...	...	...	...	...	...	.3137	6
Diarrhœa.		3	27	...	30	...	...	...	...	...	...	...	...	...	...	1	3	6	11	3	...	4	...	...	2	.1289	1
Appendicitis and Typhlitis.		11	2	...	13	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	1	...	5	5	...	.0558	...
All Liver Diseases (not Malignant).		70	22	1	91	2	...	...	...	2	5	3	1	1	12	15	6	2	3	3	9	10	13	11	7	.3910	2
Other Digestive Diseases.		59	14	2	71	...	...	...	...	...	...	...	...	...	...	3	3	...	7	6	5	13	14	14	6	.3051	2
Nephritis & Bright's Disease.		24	...	7	17	...	...	...	...	...	...	...	...	...	...	...	...	...	2	7	8	...	...	...	...	.0730	20
Puerperal Sepsis.		34	4	4	34	...	...	...	...	...	...	...	...	...	...	...	...	...	9	13	12	...	...	...	...	.1461	15
Diseases and Accidents of Pregnancy, &c.		34	3	...	37	13	6	2	3	24	7	2	...	1	34	3	...	...	...	...	...	...	...	...	...	.1590	...
Conceit Malformations.		108	3	6	105	74	12	5	5	96	9	...	...	...	105	...	...	...	...	...	...	...	...	...	...	.4512	19
Premature Birth.		86	4	5	85	39	9	5	2	55	15	5	3	1	79	6	...	...	...	...	...	...	...	...	...	.3652	12
Atrophy, Debility, &c.		7	...	...	7	6	...	1	...	7	...	...	...	...	7	...	...	...	...	...	...	...	...	...	...	.0300	...
Aelectasis.		9	...	1	8	8	...	...	...	8	...	...	...	...	8	...	...	...	...	...	...	...	...	...	...	.0343	4
Injury at Birth.		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation, overlying.		5	2	3	4	...	...	...	...	...	2	...	1	...	3	...	...	...	...	...	...	...	...	...	...	.0171	3
Syphilis.		2	...	...	2	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	.0085	...
Rickets.		77	49	26	100	...	...	...	...	...	...	...	...	...	...	11	9	8	13	10	13	12	9	11	4	.4297	1
Violence.		10	...	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	3	1	1	1	1	.0429	...
Suicide.		309	44	24	329	3	...	1	...	4	...	1	...	1	6	6	3	4	8	11	14	21	41	75	140	.14138	34
Other Defined Diseases.		40	6	3	43	3	1	...	...	4	1	...	...	...	5	3	...	...	...	2	2	4	15	11	1	.1847	...
Ill-defined Diseases.																											
Total.		2,466	338	184	2,620	152	35	18	17	222	77	51	64	67	481	323	85	51	151	138	162	228	329	372	300	11.259	408

TABLE E—NUMBER OF CASES OF INFECTIOUS SICKNESS RECOGNISED IN EACH PARISH DURING 1923.

Parish.	Smallpox.	Diphtheria.	Erysipelas.	Scarlet Fever.	Typhus Fever.	Typhoid Fever.	Puerperal Fever.	Cerebro-Spinal Fever.	Infantile Paralysis.	Ophthalmia Neonatorum.	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Malaria.	Dysentery.	Trench Fever.	Primary Pneumonia.	Influenza-Pneumonia.	Tetanus.	Chickenspox.	Total
1. Avondale, -	-	4	5	16	-	7	-	-	-	-	9	11	1	-	-	10	1	-	-	64
2. East Kilbride, -	-	5	2	39	-	-	-	-	-	-	9	1	-	-	-	3	-	-	2	61
3. Glasgow, -	-	-	-	7	-	-	-	-	-	1	4	2	1	-	-	5	-	-	8	28
4. Stonehouse, -	-	2	-	6	-	-	-	2	-	1	2	11	-	-	-	2	-	-	3	29
<i>First Division.</i>																				
5. Blantyre, -	-	11	7	68	-	7	-	2	-	2	24	25	2	-	-	20	1	-	13	182
6. Bothwell, -	-	28	14	35	-	9	8	2	-	14	44	38	-	-	-	62	5	-	10	269
7. Cambuslang, -	-	115	50	390	-	11	26	4	-	14	132	148	1	-	-	337	10	1	76	1,315
8. Cambusnethan, -	-	31	23	116	-	3	7	1	1	8	68	54	1	6	-	90	5	-	39	453
9. Dalserf, -	-	9	13	50	-	4	3	1	-	5	34	28	-	-	-	36	3	-	13	199
10. Dalziel, -	-	8	10	87	-	14	5	-	-	3	18	45	-	-	-	22	-	-	29	241
11. Hamilton, -	-	8	2	20	-	1	-	-	-	-	6	2	-	-	-	4	1	-	2	46
<i>Second Division.</i>																				
12. New Monkland, -	-	10	6	32	-	-	2	-	-	-	8	22	-	1	-	31	-	-	6	118
13. Old Monkland, -	-	209	118	730	-	42	51	8	1	44	310	337	2	7	-	582	24	1	175	2,641
14. Shotts, -	-	15	2	144	-	-	5	-	-	2	25	25	-	2	-	17	5	-	37	279
<i>Third Division.</i>																				
<i>Middle Ward.</i>																				
Cases notified in Institutions of persons belonging to other Areas, -	-	18	23	111	-	2	3	1	-	3	24	38	-	-	-	64	3	-	46	336
	-	47	25	189	-	11	5	-	-	10	27	48	-	-	-	21	7	1	10	401
	-	80	50	444	-	13	13	1	-	15	76	111	-	2	-	102	15	1	93	1,016
	-	300	175	1,242	-	62	64	11	1	61	410	473	4	9	-	704	40	2	281	3,839

Cases notified in Institutions of persons belonging to other Areas, -

II.—PREVALENCE OF INFECTIOUS DISEASE.

The diseases included under this heading are classified in relation to notification, and are divided into two groups. Group I includes diseases which are compulsorily notifiable (*a*) under the Notification Act, (*b*) by adoption under the Notification Act, and (*c*) by order of the Scottish Board of Health; and Group II, not compulsorily notifiable diseases. The diseases included in these groups are as follows:—

GROUP I.

(a)	(b)	(c)
Smallpox.	<i>August, 1906.</i>	<i>1st August, 1912.</i>
Diphtheria.	Cerebro-spinal Meningitis.	Pulmonary Tuberculosis
Scarlet Fever.	<i>24th October, 1912.</i>	<i>1st July, 1914.</i>
Typhus Fever.	Ophthalmia Neonatorum.	All forms of Tuberculosis
Typhoid Fever.	Acute Poliomyelitis.	<i>1st August, 1919.</i>
Puerperal Fever.	Tetanus.	Malaria.
Erysipelas.	Anthrax.	Dysentery.
	Glanders.	Trench Fever.
	Actinomycosis.	Acute Primary Pneumonia.
		Acute Influenzal- Pneumonia.
		<i>23rd July, 1923.</i>
		*Chickenpox.

GROUP II.

Measles.	*Chickenpox.	Ringworm.
German Measles.	Mumps.	Scabies.
Whooping-Cough.		

* Ceased to be compulsorily notifiable as from 1st January, 1924.

Compared with the previous year, there was an apparent decrease of 267 cases notified, but to this figure must be added 281 cases of chickenpox notified under the Board's Regulations of 20th July, so that the net decrease is really 548 cases. Increases occurred as follows:—Chickenpox, 281; pulmonary tuberculosis, 42; erysipelas, 17; typhoid fever, 16; diphtheria, 15; dysentery, 7. Decreases occurred as follows:—Primary pneumonia, 435; influenzal pneumonia, 145; non-pulmonary tuberculosis, 21; scarlet fever, 19; ophthalmia neonatorum, 9; infantile paralysis, 6; cerebro-spinal fever, 5; puerperal fever, 3; malaria, 2.

Smallpox, Typhus Fever, Anthrax, Glanders, Actinomycosis, and Trench Fever.

No notifications were received in respect of any of these diseases.

Diphtheria and Membranous Croup.

Table D1 shows the prevalence of diphtheria during the past five years and during each quinquennial period from 1891 to 1920 :—

TABLE D1.

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1,000 Population.	Deaths per 10,000 Population.
1891-95 (Average)	210	74	35.1	1.39	4.9
1896-1900	144	35	24.3	0.85	2.0
1901-05	151	34	22.3	0.80	1.8
1906-10	383	41	10.8	1.93	2.0
1911-15	336	32	9.9	1.63	1.5
1916-20	304	29	10.0	1.42	1.3
1919	353	29	8.2	1.64	1.3
1920	394	27	6.8	1.82	1.2
1921	314	33	10.5	1.43	1.5
1922	285	46	16.1	1.26	2.0
1923	300	24	8.0	1.28	1.0

While the number of cases of diphtheria is 15 more than for the previous year, the deaths have decreased to a remarkable extent, and the fatality rate is low.

After admission to hospital the diagnosis was revised in 29 cases as follows :—Scarlet fever, 9; sore throat, 7; bronchitis, 3; tonsillar abscess, 2; croup, 1; pneumonia, 1; post-diphtheritic paralysis, 1; tubercular meningitis, 1; rickets, 1; measles, 1; pyorrhœa, 1; and foreign body in bronchus, 1.

The cases and deaths during each month and at certain age-periods are shown below :—

	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Cases,	33	32	19	20	15	26	23	13	23	35	34	27	300
Deaths,	5	4	2	—	2	—	3	—	4	1	1	2	24
Ages,		1	1.5	5-15	15-25	25-45	45-65	65+					All ages.
Cases,		8	116	146	21	7	2	—					300
Deaths,		7	11	5	—	1	—	—					24

The number of cases removed to hospital was 278, or 92.6 per cent. of the total.

Antitoxin was administered by private practitioners to 44 cases prior to their admission to hospital, and to 15 cases which were treated at home. Seven cases which were not removed to hospital received no serum, nor was it given to 234 cases before their admission.

The experiment of providing a supply of serum at every police station throughout the District, which was begun last year, was continued. During the year 224,000 units of antitoxin was supplied from police stations to medical practitioners. In addition to this, practitioners were supplied with 412,000 direct from the Public Health Department.

The distribution of cases and deaths throughout the district was as follows :—

Avondale.—Four cases; no deaths. These cases, all of which lived in Strathaven, were notified at intervals of several months. Two were isolated at home, and two removed to hospital.

East Kilbride.—Five cases; no deaths. The cases were distributed as follows :—Busby, 1; Crossbasket, 1; East Kilbride, 2; Thorntonhall, 1.

Glasford.—No cases.

Stonehouse.—Two cases; no deaths. One case resided at Stonehouse, and one at Millheugh.

Blantyre.—28 cases; no deaths. The cases were distributed as follows :—Auchentibber, 1; High Blantyre, 10; Larkfield, 1; Low Blantyre, 2; Springwell, 3; Stonefield, 11.

The diagnosis was altered in five instances, as follows :—Scarlet fever, 1; sore throat, 3 (of which two had positive swabs); post-diphtheritic paralysis, 1. The last-named case was recognised at the Child Welfare Centre, and was suffering from paralysis of the palate and of the legs. There was a history of sore throat four weeks previously, and the child was admitted to Motherwell Hospital, where he was under treatment for four months.

A swab was sent for examination prior to notification in 10 cases, and of these nine were positive and one was negative. Two of the former did not have clinical diphtheria, and the patient who gave a negative result was found to be suffering from scarlet fever. In only five instances had serum been given before the case was notified. Routine swabbing of contacts was carried out, but no positive results were obtained.

Bothwell.—115 cases; 10 deaths. The cases were distributed as follows :—Bellshill, 46; Bothwell, 3; Bothwellhaugh, 8; Carfin, 1; Carnbroe, 1; Chapelhall, 4; Holytown, 4; Mossend, 10; Nackerty, 3; Newarthill, 12; Newlands, 2; New Stevenston, 10; Tannochside, 2; Uddingston, 9.

BELLSHILL.—46 cases; five deaths. 40 families were affected, single cases occurring in 34, and six families having two in each. The cases were distributed fairly evenly throughout the year, and, apart from secondary cases occurring in the six families referred to, only in one instance could infection be traced to contact with a previous case. In one family where two cases occurred the routine swabbing of contacts revealed the existence of two members, the mother and a son aged 11 years, from whom positive swabs were obtained. The boy had had an illness about a fortnight prior to the first clinical case being recognised, and was found to be suffering from a nasal discharge which contained diphtheria bacilli. In the case of the mother the bacilli were present on the throat, although there was no clinical evidence of the disease. Both cases were treated at home without any further spread of the disease taking place. Of the 46 cases notified, 45 were removed to hospital, but only two of the latter received serum prior to admission. In five cases the diagnoses were altered, the amended diagnoses being tonsillar abscess, simple croup, septic throat, tuberculous meningitis, and foreign body in bronchus. The last mentioned was in the case of a girl $4\frac{1}{2}$ years, who was admitted to hospital on the sixth day of illness. She had no throat condition which could account for the symptoms, but, on being X-rayed, was found to have a safety-pin, open, embedded in the right bronchus. Operative interference was successfully undertaken by Dr. Brown Kelly, and the child made a good recovery. Of the five fatal cases, two died from diphtheria, one from diphtheria and scarlet fever, one from severe faucial sepsis, and one from tuberculous meningitis.

BOTHWELLHAUGH.—Of the eight cases notified, three were found on admission to hospital not to be suffering from diphtheria. The amended diagnoses were scarlet fever, tonsillar abscess, bronchitis.

Cambuslang.—31 cases; 4 deaths. The cases were distributed as follows:—Cambuslang, 20; Halfway, 6; Hallside, 3; Newton, 2.

In 11 instances swabs were sent for examination prior to notification, and of these 10 proved positive and one negative. The last-named case was nursed at home.

Routine swabbing of contacts was practised, and in one instance a positive result was obtained, but as two subsequent swabs were negative and no clinical evidence of disease was apparent, no further action was taken.

A case of interest was that of a boy, J. S., aged 4, whose sister was removed to hospital on 20/9/23. On 20/9/23, all the contacts, including J. S., were swabbed, with negative results, and two days later the boy sickened with croup, which proved to be due to laryngeal diphtheria.

In nine instances antitoxin had been administered prior to notification.

Cambusnethan.—Nine cases; one death. The cases were distributed as follows:—Netherton, 3; Newmains, 2; Stane, 2; and Waterloo, 2.

Dalserf.—Eight cases; one death. The cases were distributed as follows:—Ashgill, 2; Larkhall, 5; and Swinhill, 1. After removal to hospital, the last case was found to be suffering from tonsillitis. Apart from one Larkhall patient, all the cases were treated in hospital. One patient died three hours after admission, having been admitted in a moribund state.

Dalziel.—Eight cases; no deaths.

Hamilton.—10 cases; one death. From February to October, 10 notifications were received, as follows:—Cadzow, 4; Ferniegair, 2; Quarter, 2; Udston, 2. All were sent to hospital, where the diagnosis was revised in the case of two Ferniegair patients, who were affected with bronchitis and scarlatina. A patient died the day after admission, in the seventh day of illness.

New Monkland.—15 cases; eight deaths. The cases were distributed as follows:—Airdrie, 1; Annathill, 1; Caldercruix, 2; Gain, 1; Glenboig, 3; Glengowan, 1; Greengairs, 1; Longriggend, 2; Moffat Mills, 2; and Roughrigg, 1.

The number of deaths in this parish was exceptionally high, viz., eight, but two of the cases which proved fatal were found on admission to hospital not to be suffering from diphtheria, but from septic scarlet fever. The six cases which died actually from diphtheria were aged 8/12, 9/12, 1, 2, 2 10/12, and 10 years respectively, and were not associated with each other, either in time or place. Taking the cases in order of their ages as given above, they were admitted to hospital on the 5th, 4th, 2nd, 4th, 2nd, and 7th day respectively of illness, and died on the 6th, 8th, 19th, 4th, 4th, and 12th day. The two who died on the 4th day of illness and the one who died on the 8th had serum prior to admission to hospital, while the others had not.

Old Monkland.—18 cases; one death. The cases were distributed as follows:—Baillieston 4; Bargeddie, 1; Broomhouse, 1; Calderbank, 4; Gartsherrie, 4; Mount Vernon, 1; Tollcross, 3.

Shotts.—47 cases; three deaths. The cases were distributed as follows:—Cleland, 20; Dykehead, 17; Harthill, 3; Hartwood, 1; Hillend, 1; and Salsburgh, 5.

Scarlet Fever.

Table D2 shows the prevalence of scarlet fever during the past five years, and during each quinquennial period from 1891 to 1920.

TABLE D2.

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1,000 Population.	Deaths per 10,000 Population.
1891-95 (Average)	1,116	34	3.06	7.42	2.2
1896-1900	1,035	41	3.98	6.13	2.4
1901-05	645	25	3.90	3.44	1.3
1906-10	927	24	2.54	4.67	1.1
1911-15	1,179	29	2.43	5.70	1.3
1916-20	929	21	2.61	4.36	0.9
1919	817	19	2.32	3.80	0.8
1920	1,349	15	1.11	6.24	0.6
1921	1,229	26	2.11	5.61	1.1
1922	1,261	26	2.06	5.61	1.1
1923	1,242	22	1.77	5.33	0.9

The total number of cases notified was 1,242, which shows an incidence somewhat lower than for the previous three years. The notifications received each month averaged approximately 104, the actual number being below the average for nine of the months and above the average for three, viz., for September, October, and November, when 149, 143, and 120 cases occurred respectively. The rise during these months was accounted for chiefly by the prevalence of the disease in New Monkland Parish, especially in Greengairs district.

The predominating type of disease was mild, and many cases were so mild as to at first escape recognition. No common source of infection was discovered in any particular series of cases, infection being apparently conveyed by personal contact.

The number of cases removed to hospital was 1,130, or 91 per cent. of all the cases notified.

The age incidence of cases and deaths for the whole district was :—

Ages.	-	- 1	1-5	5-15	15-25	25-45	45-65	All ages.
Cases,	-	7	322	787	98	27	1	1,242
Deaths,	-	—	13	9	—	—	—	22

Return Cases.—1,156 cases were discharged from hospital during the year, and of these, 46, or 3·9 per cent., were apparently still capable of carrying infection, and gave rise to 65 return cases. Of the infecting cases, it was found that in 26 no departure from apparently normal health could be found, 12 had developed rhinitis, 1 otitis, 2 a nasal discharge, and the remainder septic sores.

The interval which elapsed between the dismissal from hospital of the infecting cases and the onset of illness in the return cases was as follows :—

1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.
24	28	10	3

Altered Diagnosis.—Of the 1,130 cases admitted to hospital, the diagnosis of scarlet fever was regarded as doubtful in four cases, and in 14 no evidence of the presence of scarlet fever could be detected. In 27 cases some disease other than scarlet fever was present, viz. :—8, simple sore throat; 4, erythema; 3, chickenpox; 2, diphtheria; 1, gastro-enteritic rash; 1, adenitis; 1, whooping-cough; 1, enlarged tonsils; 1, urticaria; 1, pneumonia; 1, arthritis; 1, septic sores; 1, diarrhoea; and 1, rhinitis.

The distribution of cases and deaths according to Parish was as follows :—

Avondale.—16 cases; no deaths. 14 cases occurred in Strathaven and 2 in a dairy farm outside Strathaven. The last two, and nine of the former were removed to hospital. The main incidence of the disease fell in October, during which seven persons were infected. The source of infection in six of these was not discoverable. One appeared to be a “ return ” case.

East Kilbride.—39 cases; no deaths. 28 cases occurred in East Kilbride and 11 at farms. The following is the monthly incidence of the cases :—May, 12; June, 3; July, 3; August, 2; September, 4; October, 3; November, 8; December, 4.

Glasford.—Seven cases; no deaths. All the patients resided at Chapelton, one living at a dairy farm.

Stonchouse.—Six cases; no deaths. Two cases were nursed at home. The remainder, including one from a dairy farm, were removed to hospital.

Blantyre.—Cases, 35; deaths, none. The cases were distributed as follows:—High Blantyre, 9; Low Blantyre, 1; Larkfield, 3; Stonefield, 22.

In four cases the diagnosis was altered as follows:—not scarlet fever, 1; doubtful, 1; erythema simplex, 1; gastro-enteritic rash, 1.

In two instances the dismissal of a patient from hospital was followed by the reappearance of the disease at home. A boy, R.O., was discharged from hospital on 20/1/23, and five members of the family sickened with scarlet fever on 30th January, 2nd, 3rd, 4th, and 7th February. A “missed” case, J.T., 5 years, infected three other members of the family, and was removed to hospital on 3/10/23. He was discharged on 20/10/23, and his sister sickened with scarlet fever on 29/10/23.

The 35 cases affected 23 households, there was no special grouping in time or place, and in the majority of instances the source of infection was not traced. At the time of notification four patients were desquamating, and the infection was probably spread by these missed cases and similar cases who were not and could not be recognised as suffering from scarlet fever.

Bothwell.—390 cases; 7 deaths. The cases were distributed as follows:—Bellshill, 39; Bothwell, 35; Bothwellhaugh, 43; Calderbraes, 2; Carfin, 3; Carnbroe, 6; Chapelhall, 11; Cleland, 4; Holytown, 36; Legbrannock, 1; Mossend, 25; Nackerty, 27; Newarthill, 12; Newhouse, 4; Newlands, 1; Tannochside, 45; Thorniewood, 4; Uddingston, 92.

BELLSHILL.—The 39 cases occurred in 32 families; five families had each one secondary case, and in one family three cases occurred. The great majority of the cases were of very mild type, and in a number the diagnosis was “missed” and isolation consequently delayed. In the family with three cases, two were “return cases,” which sickened on the 4th and 12th day respectively after discharge of the infecting case from hospital. The infecting case was apparently well on discharge, but developed a rhinitis the following day. One death occurred, viz., in the case of a girl, aged $3\frac{1}{2}$ years, who died on the 23rd day of illness.

BOTHWELL.—There were 35 cases, affecting 24 families. Four families had each two cases, while four cases occurred in one family and five in another. In the family where there were four cases, they all sickened within a period of five days, whereas in the family with five cases no secondary case occurred after the primary infection, but the disease reappeared in the form of “return” cases, which sickened on the 5th, 6th, 7th, and 8th day respectively after discharge from hospital of the infecting case. The infecting case appeared to be in normal health, and there was no clinical evidence to suggest that she was still infectious; the home conditions of the family were, however, very unsatisfactory, the members, 11 in number, 6 adults and 5 children, being crowded together in a single-apartment house. Two other families had each a “return” case, which sickened on the 6th and 19th day respectively after discharge of the infecting case from hospital; in both cases the infecting case appeared to be in normal health.

BOTHWELLHAUGH.—43 cases, as compared with 103 in 1922, when there was an unusually high prevalence of the disease in the village. The cases occurring in 1923 were not a continuation of the previous year's prevalence, as during the first six months of the year only 13 cases occurred. The greatest number of cases in any one month, viz., 9, occurred during September. The number of families affected was 35, secondary cases occurred in four families, and there were four return cases, which sickened on the 9th, 15th, 15th, and 22nd day respectively after discharge of the three infecting cases, each of which appeared to be in normal health. The second type of disease was very mild, some cases having no symptoms till the appearance of the rash, and the diagnosis in others being missed altogether till the occurrence of an associated case of recognisable type.

HOLYTOWN.—36 cases, affecting 22 families; 1 death. Half the cases occurred during the last three months of the year. There were seven “return” cases, following the dismissal from hospital of five children who appeared to be in normal health at the time of discharge, but three of whom developed rhinitis and one otitis shortly after returning home. The “return” cases sickened on the 3rd, 11th, 11th, 13th, 15th, 18th, and 19th day respectively. In three cases the diagnosis of scarlet fever was not made until nephritis had supervened. There were nine secondary cases, and in one family no fewer than six cases occurred. The patients in the family were children, whose ages ranged from three to eleven years; the first case, C.L., aged 7 years,

sickened on 27/9/23, but although two secondary cases, J.L., 3 years, and A.L., 9 years, sickened on 7/10/23 and 12/10/23 respectively, the diagnosis of scarlet fever was not made in the primary case until another child, D.L., aged 5 years, sickened on 23/10/23, by which time C.L. had developed nephritis. Subsequently two others, M.L., 11 years, and R.L., aged 10 years, sickened on 27/10/23 and 3/11/23 respectively; in the case of the child last referred to, this was the second attack of scarlet fever from which he had suffered, the first being five years previously. The above history might be regarded as suggestive of a family predisposition to scarlet fever, but against that it should be noted that three other children, aged 13, 2, and 7/12 years respectively, did not develop any evidence of illness, though they were closely associated with the clinical cases in a two-apartment house, and though the first case was nursed at home for four weeks without any attempt at isolation.

MOSSEND.—25 cases, affecting 23 families. Only two secondary cases occurred, and there was one "return" case, the latter occurring nine days after discharge from hospital of a brother, who had been detained in hospital for 13 weeks, but who appeared to be in normal health at the time of his dismissal. One case originally diagnosed as German measles infected three playmates before the true character of the illness was recognised.

NACKERTY.—27 cases, affecting 24 families; 1 death. With the exception of one child, who died from scarlatina anginosa, almost all the cases were of mild type, and in one instance the diagnosis of scarlet fever was not made till desquamation had occurred, and the child, who was allowed to run about outside, infected four others. There was one "return" case which occurred on the 4th day after discharge of the infecting case.

NEWARTHILL.—12 cases, affecting 12 families; no deaths. One case occurred at a dairy farm, in a ploughman, who also acted as milkman, but there was no evidence of any resulting contamination of the milk supply.

UDDINGSTON.—92 cases; 1 death. The cases were fairly evenly distributed throughout the year, and occurred in 84 families, there being one instance in which three members of the family were affected, and six in which two were affected. There was no common source of infection, the disease being traceable from case to case in the majority of instances, and in not a few the diagnosis was missed until the occurrence of an associated case of definite character. There were three "return" cases.

Cambuslang.—Cases, 116; deaths, 4. The cases were distributed as follows:—Cambuslang, 77; Hallside, 5; Halfway, 25; Newton, 7; Westburn, 2.

In three instances the dismissal of a patient from hospital was followed by the reappearance of the disease in the home, viz.:—L.C. was discharged from hospital on 4/5/23, and two members of the family sickened on 15/5/23 and 17/5/23. J.L. was dismissed on 14/7/23, and a sister and brother sickened on 19/7/23 and 20/7/23. J.H. returned from hospital on 14/11/23, and a brother sickened on 7/12/23.

In many instances a direct contact infection was discovered, and several missed cases were brought to light during the course of the investigations. Cases of concurrent sore throat in the family or neighbourhood were frequently noted, but although these patients were kept under observation no desquamation occurred. It is recognised that many of these sore throats are of scarlatinal origin and probably infective, but it is not possible to deal with such patients by removal to hospital owing to the lack of confirmatory evidence. In notifying a definite case of scarlet fever, a medical practitioner admitted this difficulty in a note which stated that “an elder sister has a sore throat and tongue resembling scarlet fever, but no rash, and, although suspicious, I cannot notify.”

Cambusnethan.—50 cases; 1 death. The cases were distributed as follows:—Netherton, 2; Newmains, 11; Overtown, 12; Stane, 23; Waterloo, 2.

Dalserf.—87 cases; 1 death. In two the diagnosis was altered at hospital. The distribution of the cases was as follows:—Ashgill, 2; Birkenshaw, 3; Cornsillock, 1; Larkhall, 76; Swinhill, 3. Three cases were isolated at home. In Larkhall the cases were spread equally over the whole year, and the persistence of the disease was probably due to the presence of mild undetected cases and the late diagnosis of others. Six cases from different homes were recognised as having scarlatina only when desquamating.

Dalziel.—20 cases; no deaths.

Hamilton.—32 cases; 1 death. All cases but two were removed to hospital. 12 occurred at Cadzow; 1 at Earnock; 7 at Eddlewood; 1 at Ferniegair; 1 at Home Farm Rows; 2 at Meikle Earnock; 6 at Hamilton; 1 at Quarter; and 1 at Merryton Rows.

New Monkland.—144 cases; 5 deaths. The cases were distributed as follows :—Airdrie, 5; Annathill, 14; Caldercruix, 4; Darngavil, 10; Forrestfield, 2; Glenboig, 31; Glenmavis, 7; Greengairs, 37; High Riggend, 2; Longriggend, 1; Luggiebank, 2; Meikle Drumgray, 1; Moffat Mills, 13; North Stanrigg, 6; Plains, 2; Roughrigg, 2; Wattstown, 2; Whiterigg, 3. Compared with the previous three years, from which the average annual number of cases was 30, there was a considerably increased incidence of scarlet fever in the Parish. This was very largely due to an outbreak of the disease in Greengairs district during September and October, accounting for over 60 cases, and to a persistent prevalence of the disease in Annathill and Glenboig, when 45 cases occurred.

Darngavil.—10 cases; 2 deaths. In three of the cases the diagnosis was missed, and infection was conveyed to other three children before a correct diagnosis was made. One of the missed cases was found to be suffering from septic scarlet fever, which proved fatal. The other fatal case occurred in a child, aged $1\frac{1}{2}$ years, who was found to be suffering also from diphtheria.

Glenboig and Annathill.—45 cases; 1 death. The great majority of the cases were of very mild type; in several instances no pre-eruptive symptoms were noticed, and in others the diagnosis was missed. Six secondary and six "return" cases occurred, and in several others infection could be definitely traced to direct personal contact. One fatal case, a child of 1 $\frac{8}{12}$ years, occurred.

Greengairs.—37 cases; 2 deaths. 25 of the cases occurred during the months of September, October, and November. The type of disease was generally mild; diagnosis was often a matter of difficulty, and, consequently, isolation was delayed and the chances of infection by direct contact increased. Five "missed" cases were discovered, but no doubt in a number of instances the disease remained unrecognised. 10 of the cases were secondary, and there were two "return" cases. As an illustration of the difficulty of controlling disease of such mild type as has been referred to above, one instance might be cited. This was the case of a farmer's daughter, I. M., aged 24, who sickened with scarlet fever on 9th November. A fortnight previous to this date, a nephew, T. M., aged 6, with whom she had been frequently in contact, and whose home was at a neighbouring farm, had complained for a day or so of sore throat and headache, but no rash had been

noticed. At the second farm referred to, a Mrs. S. was employed as a servant, and this woman had two children who stayed in her own home near Greengairs. A few days before T.M. sickened she visited her children who had been ill, and shortly after returning to the farm complained of sore throat for a day or so; her face was flushed and she felt fevered. Her illness was reported as tonsilitis, and that of her children as measles; one of the latter, however, desquamated, and there can be no doubt that the infection in all the cases was scarlatinal. Had the illness in the last case which occurred, viz., I.M., not been recognised as scarlet fever at its commencement, the spread of the disease might have been considerably extended, as the farm at which she resided was a dairy farm and she was one of the milkers.

Three cases occurred on dairy farms, but there was no evidence of any contamination of the milk supply having occurred.

Old Monkland.—111 cases; no deaths. The cases were distributed as follows:—Baillieston, 42; Bargeddie, 18; Barrachnie, 4; Calderbank, 13; Carmyle, 2; Easterhouse, 1; Gartgill, 4; Glenboig, 7; Kirkstyle, 3; Mount Vernon, 7; Tollcross, 10. The disease was more prevalent than in recent years in this Parish, especially in Baillieston and Bargeddie districts, but the type was a very mild one. There was no common source of infection and no serious outbreak. In many cases the disease was unrecognised until desquamation had occurred, and numerous secondary cases were then accounted for.

Shotts. — 189 cases; 3 deaths. The cases were distributed as follows:—Cleland, 99; Dykehead, 43; Forrestfield, 1; Gartness, 4; Harthill, 26; Hartwood, 1; Newhouse, 1; Northrigg, 1; Salsburgh, 13.

Typhoid Fever.

TABLE D3.—TYPHOID FEVER.

Year.	Cases Notified.	Deaths Registered.	Deaths per 100 Cases.	Cases per 1,000 Population.	Deaths per 10,000 Population.
1891-95 (Average)	465	56	11.95	3.0	4.2
1896-1900	350	45	12.73	2.0	2.6
1901-05	294	40	13.54	1.5	2.1
1906-10	206	19	9.40	1.0	0.9
1911-15	111	13	11.09	0.5	0.5
1916-20	86	11	12.74	0.3	0.5
1919	-	103	11	0.4	0.5
1920	-	63	6	0.2	0.2
1921	-	106	14	0.4	0.6
1922	-	46	4	0.2	0.1
1923	-	62	5	0.2	0.2

The incidence of typhoid fever, though a little greater than in 1922, continued low during 1923, when the total number of cases notified was 61, with 5 deaths. The fatality rate was also low, being 8·2 per cent.

The age incidence of cases and deaths was as follows:—

Ages,	- 1	1-5	5-15	15-25	25-45	45-65	All ages.
Cases,	—	5	20	12	16	9	62
Deaths,	—	—	—	—	3	2	5

The majority of the cases occurred during the third quarter of the year, when 32 cases were notified, the largest monthly numbers occurring in July and September, when there were 15 and 12 cases respectively; the next highest number, viz., 8, occurred in May. 59 cases (96·7 per cent.) were removed to hospital, and in 10 cases the diagnosis of typhoid fever was found to require revision. The altered diagnoses were as follows:—bronchitis, 2; pulmonary tuberculosis, 1; tuberculous meningitis, 1; tuberculous peritonitis, 1; scarlet fever, 1; pneumonia, 1; pleural effusion, 1; positive Widal, 1; and negative, 1. Deducting these cases, the number of actual cases of typhoid fever is reduced to 52.

The cases were distributed throughout the district as follows:—Avondale, 7; Blantyre, 9; Bothwell, 11; Cambuslang, 3; Cambusnethan, 4; Dalserf, 14; Dalziel, 1; Old Monkland, 2; and Shotts, 11. No cases occurred in the Parishes of East Kilbride, Glasford, Stonehouse, Hamilton, or New Monkland.

A short description is given below of the cases as they occurred in the respective parishes.

Avondale.—Seven cases; no deaths. Five of the cases occurred at Kype Water Works, one at Hareshawhead Farm, and one at Strathaven.

On 28th September a local general practitioner notified the Public Health Department that the caretaker of Kype Water Works and his family, comprising in all five persons, were suffering from enteric fever. These persons were examined on the same day, when it was discovered that two had sickened on the 31st August, and the rest shortly thereafter. Other facts also emerged — that a person at Hareshawhead Farm, distant about a mile, had been unwell since the middle of August; that the two patients referred to had dined in the sick-chamber of this person a week before the commencement of their illness; and that the affected family obtained its milk supply from

that farm, and were, indeed, its only customers. In Hareshawhead Farm was found an adult female suffering from a prolonged attack of fever. Serological tests indicated the infective agent in all the cases to be the *B. paratyphosus B.* Exhaustive inquiries as to the source of infection of this woman, from whom no doubt the other patients contracted the disease, failed to produce any positive evidence.

Blantyre.—Cases, 9; deaths, 2 (positive Widal, 2). Of the nine cases notified, the diagnosis was altered in one instance to tuberculosis of the abdomen and pleura. At the date of admission to hospital the patient presented many of the signs of enteric fever, and the correct diagnosis was possible only after a period of observation. This difficulty in diagnosis no doubt accounted for the admission of two patients to general hospitals in Glasgow, where they were found to be suffering from enteric fever.

The eight actual cases involved eight households, and occurred during the months of February (2), May (1), June (1), August (1), and September (3). In no case was direct contact infection established, but in one investigation a boy residing in a neighbouring house was found to be suffering from enteric fever. In only one instance was there sufficient evidence to suggest that a "missed" case had been discovered.

In the month of September three cases were notified, and the probable dates of onset were 3rd, 5th, and 7th. A most careful inquiry was made into all possible means of infection, but no common source was found. Two contacts gave positive Widal reactions; one was an ex-soldier who had received anti-typhoid inoculations, and the other was a healthy girl whose previous history revealed nothing to account for the result.

Bothwell.—11 cases; no deaths. The cases were distributed as follows:—Chapelhall, 1; Bellshill, 7; Holytown, 2; and Mossend, 1. Although 10 cases were notified as suffering from enteric fever, only in seven instances was the diagnosis verified, the diagnoses in the other cases being as follows:—the Chapelhall case, a woman, aged 26, was found to be suffering from pleurisy, with effusion; a Mossend case, a child of 1 8/12 years, proved to be a case of chronic gastro-enteritis, due to faulty feeding; and two of the Bellshill cases were suffering from tuberculous meningitis and simple enteritis respectively. There were therefore five actual cases in Bellshill, one in Holytown, and one in Mossend. Of the former, two occurred in one family, the patients

being brother and sister, aged 13 and 10 years respectively; the elder sickened first, and infected his sister who slept with him; the source of infection was a sister of 17 years, who had had mild and unrecognised enteric fever a few weeks previously, and a specimen of whose blood, taken during the routine examination of contacts, gave a positive Widal reaction. Of the other three cases one was infected outwith the district, in another the source of infection could not be traced, and in the third infection was traced to a "carrier." The patient was a Lithuanian miner, aged 18, who stayed with a woman also a Lithuanian, who had been in the habit of keeping lodgers during the previous fourteen years. When inquiries were made it was found that the present was the sixth case of enteric fever which had occurred during the past eleven years. The cases had all been lodgers, the first two being brother and sister, who sickened within a short time of each other; the next two, which occurred three years later, being male lodgers who sickened about the same time; and the fifth occurring a year later in another male lodger. Of the landlady's own family, four in number, whose ages ranged from 19 to 7 years, no history suggestive of enteric fever could be obtained, and from the woman herself no history of illness could be obtained. Specimens of blood were obtained from all the contacts, but the results of agglutinative reaction were all negative. The evidence, however, suggesting the existence of a local "carrier" was so strong that a specimen of excreta was also examined, and, in the case of the landlady, the faeces were found to contain typhoid bacilli. No subsequent cases have occurred, and the "carrier" is being kept under observation. The Holytown case was that of a girl aged 18 years, whose illness began acutely, and who was regarded by her medical attendant as suffering from appendicitis. She was sent to a general hospital for operation, but before this was carried out the true nature of the disease was recognised. The source of infection was not traced. The case from Mossend was a case of paratyphoid fever. The patient was a married woman who had been ill for three weeks, at the end of which time she visited the local Maternity and Child Welfare Centre regarding admission to Calderbank Convalescent Home. Her history was so suggestive of mild enteric fever that examination was at once made in her own home, and it was found that when on holiday at the East Coast, about five weeks previously, her child, aged 2 years, had been ill for a fortnight, with vomiting, diarrhoea, and malaise. Blood examinations for agglutinative reaction were carried out, and, though the results were negative in the case of the mother, a positive reaction to *B. paratyphosus B.* was obtained in the case of the child, who had evidently been a minor case and had infected her mother.

Cambuslang. — Three cases; no deaths. After observation in hospital, the diagnosis of enteric fever was altered to abdominal tuberculosis in one instance. The source of infection was not traced in either of the remaining cases. One of these was a woman, aged 35 years, who had been confined nine weeks previous to the date of notification. During that time she was in indifferent health, and enteric fever set in suddenly, with headache, abdominal pain, diarrhoea, and vomiting. On notification she presented all the appearances of an acute pulmonary condition and none of the signs of enteric fever. The Widal reaction was at first negative and then became positive at a later date, and the subsequent course of the illness proved the disease to be enteric.

Cambusnethan.—4 cases; 2 deaths. All the cases occurred in Stane.

Dalserf.—14 cases; 1 death. 14 cases were removed to hospital as suffering from enteric fever. In three the diagnosis was altered there to scarlatina, bronchitis, and pneumococcal empyema. All the patients lived in Larkhall, and the majority in the environment of Meadowhill Rows. The first and the last thirds of the year were entirely free from the disease, which showed itself in the intervening warm months. Direct infection from person to person was traced in three cases. Every effort was made to arrest the spread of the disease by early removal of patients to hospital, house-to-house visitation, and special methods directed towards maintaining cleanliness of sanitary appliances and the surroundings of the houses.

Dalziel.—One case; no death.

Old Monkland.—Two cases; no deaths. The cases occurred, one at Bargeddie and one at Calderbank. In the case of the former infection was imported from outwith the district, and in the latter the source of infection could not be traced.

Shotts. — 11 cases; no deaths. The cases were distributed as follows:—Harthill, 9; Dykehead, 2.

Blood Examinations.—Of the bloods examined nine were positive while two proved negative. In one case the result was unknown—this patient was admitted to Edinburgh Royal Infirmary suffering from appendicitis. The illness, however, proved to be enteric fever, and he was removed to the City fever hospital, where he died.

All the cases admitted to hospital proved to be suffering from enteric. The two cases which gave negative results in examination of the blood showed the usual clinical signs of the disease.

The cases were comparatively few, and occurred at different intervals. In one or two instances the contacts contracted the disease, but in no instance did it reach epidemic form.

It is interesting to observe that the greater proportion of the cases occurred in districts such as Harthill and Stane, where the water-carriage drainage system has not yet been installed, and where the sanitary arrangements are on the whole unsatisfactory and in some instances quite inadequate.

Cerebro-Spinal Meningitis.

11 cases were notified and of those 4 died. 2 of the cases died at home. Notification was not received until after death had occurred. 8 cases were admitted to hospital, and in 4 the diagnosis was revised after lumbar puncture had been carried out; the revised diagnoses were—gastro-enteritis, 2; tuberculous meningitis, 1; pneumococcal meningitis, 1.

Puerperal Fever.

The number of cases notified was 64, and the number of deaths 17, as compared with 67 cases and 20 deaths the previous year.

The disease is dealt with fully in the Maternity and Child Welfare Section of the report.

Erysipelas.

175 cases were notified, and 8 deaths registered. 46 cases were removed to hospital.

Ophthalmia Neonatorum.

61 cases, as compared with 70 in 1922, were notified. The disease is dealt with in the Maternity and Child Welfare Section of the report.

Pneumonia.

749 cases of pneumonia were brought to the notice of the Department, 652 cases being notified, 47 were discovered from the Registrars' returns of deaths, and 50 by the medical and nursing staff. The notified cases were described on the notification form as follows:—Pneumonia, 221; broncho-pneumonia, 153; primary pneumonia, 117; lobar pneumonia, 110; influenzal pneumonia, 39; and pleuro-pneumonia, 12.

Only 112 cases were removed to hospital.

Mortality.—The deaths due to pneumonia (all forms) numbered 195, giving a fatality-rate of 26·0 per cent., and a death-rate of 0·83 per 1,000 of the population. The following table shows the annual number of deaths and the death-rate per 1,000 since 1918:—

	Year—1919	1920	1921	1922	1923
Deaths, -	308	272	189	301	195
Death-rate, -	1·43	1·24	·86	1·33	0·83

The distribution of cases and deaths throughout the year is shown below:—

Month—	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Cases, -	92	48	70	54	95	85	52	20	42	57	48	86	749
Deaths, -	34	12	13	11	23	17	11	12	11	6	14	31	195

The age-distribution of cases and deaths, together with the fatality-rate in each age group, are given in the following table:—

		All ages. - 1 1·5 5-15 15-25 25-45 45-65 65 and over.									
Cases	{ Primary,	-	-	709	68	239	150	72	74	69	37
	{ Influenzal,	-	-	40	—	2	7	6	12	12	1
Total,		-	-	749	68	241	157	78	86	81	38
Deaths, -		-	-	195	48	48	8	6	27	37	21
Fatality-rate, -		-	-	26%	70%	20%	5%	7%	31%	45%	55%

Of the 195 deaths from primary pneumonia, 55 had taken place before notification was received, 66 occurred in cases which were not notified at all, and of the remaining 74, the following tabular statement shows the day of illness on which notification was obtained:—

Day of Illness,	-	1	2	3	4	5	6	7	8	9	10	11	12	Over 12	Total.
Fatal Cases															
Notified,	-	-	2	3	—	13	6	7	9	4	5	2	3	1	68

* In 6 other deaths this information could not be obtained.

Information with reference to the day of illness on which each case was notified was recorded in the 629 notified cases, and may be tabulated thus:—

Day of Illness,	1	2	3	4	5	6	7	8	9	10	11	12	Over 12	Died before Notification.
Cases														
Notified,	3	23	45	64	63	86	70	51	42	31	22	20	54	55

Acute Anterior Poliomyelitis.

Only one case was notified, the patient being a child, aged $1\frac{1}{2}$ years. Patient was admitted to the Sick Children's Hospital, Glasgow.

Malaria.

4 cases were notified, the patient in each instance being an adult male who had been infected while on Military Service.

Dysentery.

9 cases were notified. In 4 of the cases infection was imported from abroad, the patients being ex-soldiers, and to one of them, E.F., aged 38 years, residing in Newton, five secondary cases, all of which occurred in children, appeared to be due.

Tetanus.

2 cases were notified, and treated in hospital.

Chickenpox.

281 cases were notified, all of which were treated at home. The largest number in any age group, viz., 120, occurred in the age group 15-25 years, and the next largest, viz., 95, in the age group 1-5 years. 25 cases occurred in patients under 1 year of age, 39 in children between 5 and 15, while 2 were aged over 25 years. A suspicion of smallpox was entertained by the practitioner in attendance in the case of 2 children, but in neither instance was the suspicion verified.

The disease ceased to be compulsorily notifiable on 31st December, 1923.

Diarrhœal Diseases.

The annual number of deaths and the death-rates per 1,000 of the population for each of the years 1919-23 were:—

	1919	1920	1921	1922	1923
Deaths, - - -	95	128	112	71	73
Death-rate per 1,000.	0.44	0.59	0.51	0.31	0.31

All the deaths were of children under 2 years of age, 57 being of infants under 1 year and 16 of children from 1 to 2 years, an increase of 5 and a reduction of 3 respectively, compared with the corresponding figures for 1922.

Measles.

The deaths from measles show a considerable reduction, compared with the previous year, and 26 less than the average number of deaths

for the last quinquennial period, *i.e.*, 45, as against 71. The disease not being compulsorily notifiable, its exact incidence is not known, but from the distribution of deaths in point of time and place, it appears to have been prevalent chiefly during the months of March, April, and December, and in the parishes of Cambuslang, Cambusnethan, Blantyre, Shotts, and Old Monkland, in the order named.

The annual number of deaths and the death-rates per 1,000 of the population for each of the years 1919-23, were :—

	1919	1920	1921	1922	1923
Deaths, - - -	40	73	10	147	45
Death-rate per 1,000,	·18	·33	·04	·63	·19

Whooping-Cough.

The annual number of deaths and the death-rates per 1,000 of the population for each of the years 1919-23 were :—

	1919	1920	1921	1922	1923
Deaths, - - -	68	50	133	85	67
Death-rate per 1,000,	·31	·23	·60	·37	·28

There were 67 deaths due to whooping-cough, compared with an average of 93 for the preceding quinquennial period.

31 per cent. of the deaths from measles and whooping-cough were of infants under 1 year of age, and 95 per cent. were of children under 5 years.

Ringworm.

102 cases of ringworm were brought under the notice of the Department, and 6 were treated with X-rays at the County Hospital, Motherwell.

Scabies.

During the year 140 cases were reported. As it is often difficult to prevent the spread of this disease and to have treatment satisfactorily carried out at home, hospital treatment was offered where this was considered necessary.

Venereal Diseases.

The County Scheme for the recognition and treatment of these diseases includes the Middle Ward District, and the work done under the scheme is given in the County Report, along with the number of cases dealt with from each area at the various treatment centres.

School Closure.

It was not found necessary to recommend the closure of any school or department of a school during the year.

Anthrax.

Under the Diseases of Animals Act, 1894, 11 outbreaks of this disease, affecting 11 cattle, were reported by the Inspector under the Anthrax Order. The outbreaks were distributed as follows:—East Kilbride, 3; Avondale, 2; Hamilton, 2; Glasford, 1; Bothwell, 1; Shotts, 1; Stonehouse, 1.

Institutions.

During the year 4,018 Middle Ward patients, and 441 patients from areas outwith the Middle Ward, were admitted to the various institutions, the total of 4,459 admissions exceeding the record established in the preceding year. Little requires to be said with regard to the respective institutions, the more important of which are dealt with in detail in another portion of this report, but the need of increased accommodation for the proper isolation and treatment of cases of acute infectious disease was never so clamant. For example, out of 749 cases of pneumonia brought to the notice of the department during the year, only 112 could be accommodated in hospital. Patients suffering from pneumonia require the best of nursing, and such comforts as can only be provided in a well-ventilated and properly constructed and equipped hospital.

Considerable progress has been made during the current year with the additional accommodation in course of erection at the County Hospital, Motherwell, and but for the dispute in the building trade which has stopped operations during the past few weeks, we had hoped to have had the buildings occupied by the month of November. This additional accommodation comprises a two-storey pavilion capable of accommodating 62 patients, with accommodation in the basement for a well-equipped laboratory and radiographic apparatus. To provide for the extra nursing accommodation required the existing Nurses' Home is being extended in a south-westerly direction, and the extension will provide for 46 nurses, with a commodious dining room, and a recreation room of such a size that it can be utilised for entertainments. It is hoped, when this staffing accommodation is available, that the composite pavilion erected in the year 1920 as a special isolation pavilion, but which had to be utilised for the accommodation of the nursing staff, will be made available for its original purpose.

The Committee have also had under consideration during the current year a proposal to provide accommodation for cases of measles and whooping-cough in children of tender years, say three years of age and under.

The following statistical tables, F. (a) and (b), give detailed information with regard to the admissions to the various institutions:—

TABLE F.—HOSPITALS AND SANATORIA. (a) PATIENTS ADMITTED FROM MIDDLE WARD DISTRICT.

HOSPITALS AND SANATORIA.	Cases in Hospital at the beginning of year.	Admitted during year from the Middle Ward.	Dis- charged.	Died.	Cases remaining in Hospital at the close of year.	NATURE OF CASES ADMITTED DURING YEAR.																	Total.		
						Smallpox.	Diphtheria.	Scarlet Fever.	Typhoid Fever.	Cerebro-Spinal Fever.	Puerperal Fever.	Erysipelas.	Pneumonia.	Influenza.	Pulmonary Tuberculosis.	Tuberculosis. All other forms.	Veneral Diseases.	Ophthalmia Neonatorum.	Encephalitis Lethargica.	Other Diseases.	Measles.	Whooping-cough.		Mothers.	Children
Motherwell,	- 184	1,607	1,511	106	174	—	248	*895	55	6	52	43	89	—	4	112	36	—	9	54	3	1	—	1,607	
Lightburn,	- 32	299	296	14	21	—	29	233	1	—	1	3	23	—	3	1	—	—	2	—	3	—	—	299	
Shotts,	- 42	137	120	15	44	—	—	—	—	—	—	—	—	—	103	34	—	—	—	—	—	—	—	137	
Stonehouse,	- 59	130	112	10	67	—	—	—	—	—	—	—	—	—	—	130	—	—	—	—	—	—	—	130	
Longriggend,	- 41	160	146	15	40	—	—	—	—	—	—	—	—	—	112	48	—	—	—	—	—	—	—	160	
Hairmyres,	- 120	260	224	—	156	—	—	—	—	—	—	—	—	—	153	107	—	—	—	—	—	—	—	260	
Dalserf,	- 4	64	50	4	14	—	—	*16	—	—	—	—	—	—	1	47	—	—	—	—	—	—	—	64	
Bellshill,	- 39	845	825	30	29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	597	248	845
Calderbank House,	19	395	383	4	27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	212	183	395
Blantyre Hospital,	17	121	110	13	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	43	78	121
TOTALS,	- 557	4,018	3,777	211	587	—	277	1,144	56	6	53	46	112	—	376	479	36	—	11	54	6	1	852	509	4,018

*14 Cases were transferred from Dalserf Hospital to Motherwell Hospital.

Tuberculosis.

Mortality.—The deaths from all forms of tuberculosis numbered 270, viz.—Pulmonary, 147; meningeal, 52; abdominal, 43; and other forms, 28. In the following table the deaths are classified in age periods :—

Ages,	- 1	1-5	5-10	10-15	15-25	25-35	35-45	45-65	65 and over.	Total.
Pulmonary,	- 2	11	4	5	35	33	27	27	3	147
Meningeal,	- 13	22	7	1	6	2	1	—	—	52
Abdominal,	- 8	18	7	3	4	3	—	—	—	43
Other forms,	- 2	5	3	2	8	1	3	4	—	28
Total,	- 25	56	21	11	53	39	31	31	3	270

Death-rates.—The death-rates per 10,000 of the population were :—

	Pulmonary.	Meningeal.	Abdominal.	Other Forms.
1918, - -	8.2	2.9	2.1	0.8
1919, - -	6.7	1.7	1.3	0.9
1920, - -	7.4	2.1	1.3	1.2
1921, - -	6.3	2.1	1.2	1.3
1922, - -	5.8	1.7	1.9	1.2
1923, - -	6.3	2.2	1.8	1.2

An increase in the death-rate from pulmonary and meningeal tuberculosis occurred during the year, and for both diseases the rates were those which obtained in 1921. 16 more persons died of pulmonary tuberculosis, and 13 of meningeal tuberculosis, and when compared with the previous year the rates were increased by 0.5 and 0.5 per 10,000 respectively. The actual numbers are not great, and may be due to chance fluctuation, but they are to be measured in terms of the decrease which was expected, and in the case of pulmonary tuberculosis, of the number of non-fatal cases which the increased mortality implies.

If the table which shows the deaths classified according to age periods is examined it is found that of the 16 additional deaths from pulmonary tuberculosis 11 occurred at ages under 25, and 9 at ages between 10 and 25 years. When compared with that for the previous year, the table which classifies the fatal cases according to the total duration of illness shows that the increased mortality is accounted for by those cases in which the illness was of less than one year's duration.

The position may be thus summarised in the case of pulmonary tuberculosis. Having regard to the decline in the death-rate during previous years it was to be expected that there would be 15 deaths

less, but actually 16 more persons died from pulmonary tuberculosis, and a comparative increase of 31 deaths resulted. If it be accepted that for each death from pulmonary tuberculosis 10 non-fatal cases occur, the actual increase in cases of pulmonary tuberculosis is 160. The increased mortality affected chiefly the age periods of late childhood and adolescence, and was characterised by a greater prevalence of the more acute forms of the disease. There is not sufficient evidence to define a cause of the increased tuberculosis death-rate, but the mortality from pulmonary tuberculosis is similarly affected by unfavourable economic conditions.

Notification.—There were on record at the beginning of the year 997 cases of pulmonary and 1,258 cases of non-pulmonary forms of the disease, and during the year 422 new cases of the former type and 475 new cases of the latter were brought to notice, giving a total of 1,419 and 1,733 cases respectively. The following tabular statement shows the new cases relative to notification:—

	Pulmonary.	Non-Pulmonary.
New cases notified, - - - -	324	357
„ „ not notified, - - - -	98	118
	<hr/>	<hr/>
	422	475
	<hr/>	<hr/>

The new cases were dealt with as follows:—

	Pulmonary.	Non-Pulmonary.
Admitted to Sanatorium, - - -	220	213
Refused to go to Sanatorium, - -	54	103
Died before or soon after notification, -	75	81
Inmates of asylums, &c., - - -	17	3
Visitors or left district, - - -	8	13
Unsuitable for institutional treatment, -	31	51
Waiting treatment towards end of year,	17	11
	<hr/>	<hr/>
	422	475
	<hr/>	<hr/>

Types of Non-Pulmonary Cases.—The 475 new cases are classified in the following statement according to the localisation of the principal lesion present at the time of notification:—

Cervical glands, - - -	192	Special Organs—	
Abdominal, - - -	120	Eyes, 5; Kidney, 3;	
*Bones and joints, - - -	81	Throat 1; Ear, 1;	10
Meninges, - - -	55	Subcutaneous tissue;	10
General, - - -	7		
			<hr/>
			475
			<hr/>

* *Bones and Joints—Detailed.*—Knee Joint, 18; Spine, 17; Hip Joint, 10; Ankle Joint, 5; Elbow Joint, 5; Metacarpus, Metatarsus, and Phalanges, 16; others, 10=81 Total.

Distribution throughout District.—The parishes of residence are given in Table E.

Age and Occupation.—The cases are classified below according to age and occupation groups:—

Ages,	- 1	1-5	5-15	15-25	25-45	45-65	65+	Total.
Pulmonary,	3	27	120	85	128	50	9	422
Non-Pulmonary,	35	160	176	61	32	11	—	475

OCCUPATIONS.

Domestic Work—

	Non-Pulmonary.	Pulmonary.
Housewives, ...	18	60
Domestics, ...	12	13
Children, ...	201	33
Scholars, ...	170	120

Miners, &c.—

Miners, ...	26	67
Pithead Workers, ...	8	10

Metal Workers—

Steelworkers, ...	4	13
Ironworkers, ...	1	1
Engineers, ...	1	2
Labourers, ...	1	6
Blacksmiths, ...	—	2

Factory and Workshop—

Machinist, ...	1	—
Dyeworker, ...	1	—
Weavers, ...	1	3
Millworker, ...	1	—
Dressmaker, ...	—	1
Baker, ...	1	—
Shoemakers, ...	—	2
Others, ...	—	—
Shopkeepers, ...	2	15

Stone or Brickworkers—

Quarry Foreman, ...	1	—
Bricklayers, ...	—	4
Brickworker, ...	1	—
Miscellaneous, ...	7	42
No Occupation, ...	17	28

475

422

Duration of Illness.—The duration of illness according to patients' own estimate at time of notification was as follows:—

Months,	- 1	1-2	2-3	3-6	6-9	9-12	12-18	18-24	24 and over.	Not Known.	Total.
Pulmonary,	24	33	28	75	38	21	33	4	138	28	422
Non-Pulmonary,	90	64	35	73	46	13	53	7	81	13	475

It will again be noticed from the above figures that a large number of the cases are not notified for a considerable period after the onset of symptoms.

Home Conditions.—The following tables show the number of apartments and types of houses occupied by the patients and their families:—

Pulmonary Cases—

Apartments.	Tenement.	Cottages.	Row.	Institutions.	Total.
1	50	10	44	—	104
2	101	17	79	—	197
3	23	20	9	—	52
4	2	2	—	—	4
Over 4	5	36	1	22	64
Not known,	1	—	—	—	1
					<hr/> 422

Of the 422 cases recorded, 104 resided in houses of a single apartment, 197 of two apartments, 52 of three apartments, and 46 of four or more apartments, while 22 were institution cases. In one instance information regarding the home conditions was not recorded, owing to patient leaving the district immediately after notification was received. The total number of persons in each class of house, with the average number per house and per room, were:—

Apartments.	1	2	3	4 and over.
Total inmates, - - -	529	1,279	301	288
Average number per house,	5.0	6.49	5.78	6.2
„ „ per room,	5.0	3.24	1.92	under 1.5

Non-Pulmonary Cases—

Apartments.	Tenement.	Cottages.	Row.	Institutions.	Total.
1	61	5	71	—	137
2	138	21	83	—	242
3	18	35	5	—	58
4	5	10	2	—	17
Over 4	1	12	1	4	18
Not known,	1	1	1	—	3
					<hr/> 475

Apartments.	1	2	3	4 and over.
Total inmates. - - -	764	1,494	397	202
Average number per house,	5.5	6.17	6.84	6.51
„ „ per room,	5.5	3.08	2.28	under 1.62

Institutional Treatment.—The following table shows the total number of all cases admitted and re-admitted to tuberculosis institutions. No case was sent to any institution outwith the County:—

Cases.	Shotts.	Stonehouse.	Uppertown.	Motherwell.	Lightburn.	Hairmyres.	Dalserf.	Total.
Pulmonary, 103	—	112	4	3	153	1		376
Non-Pulmonary, 34	130	48	112	1	107	47		479
	137	130	160	116	4	260	48	855

Deaths.—147 pulmonary cases and 123 non-pulmonary cases died. Of these 78 and 74 respectively were of cases notified during the year.

The pulmonary death-rate for 1923 was 6·3 per 10,000 of the population, and the non-pulmonary, 5·2. The mortality for pulmonary forms is given in the following table, which shows the average annual number of deaths and the death-rates per 10,000 of the population in quinquennial periods since 1891:—

PULMONARY TUBERCULOSIS IN EACH REGISTRATION DISTRICT OF THE
MIDDLE WARD.—AVERAGE ANNUAL NUMBER OF DEATHS FOR
QUINQUENNIAL PERIODS 1891-1920, AND FOR THE YEARS 1921,
1922, AND 1923.

Registration District.	Population. Census 1921.	1891-1895.	1896-1900.	1901-1905.	1906-1910.	1911-1915.	1916-1920.	1921.	1922.	1923.
Avondale, -	5,902	10·2	7·4	5	7	4	3·3	6	1	2
East Kilbride, -	4,787	4·6	6·2	5·8	5·8	4·2	4·4	3	6	1
Glasford, -	4,131	1·4	·8	1·2	1·2	3	·6	—	2	1
Stonehouse, -	4,204	4·8	6·8	4·2	2	2·4	2·2	4	3	1
Blantyre, -	18,154	18·2	17·6	22·2	15·6	19·3	16·1	24	12	20
Bothwell, -	19,904	18	14·6	17·8	14	15·3	15·1	13	12	17
Bellshill, -	20,934	10·6	18	13·6	15·4	16	19	13	15	18
Holytown, -	18,579	13·4	11·4	13·4	16·8	13	14·1	10	8	10
Cambuslang, -	26,130	28·4	25·4	27	19·4	24·1	25	12	16	20
Cambusnethan, -	12,243	13·8	7·4	9·2	9·4	11·1	8	12	12	11
Calderhead, -	4,007	2·2	2·8	2·8	2·6	1·4	4	1	3	2
Dalserf, -	4,491	3·8	1·8	4·2	2·6	2·2	2·1	2	2	5
Larkhall, -	14,974	12	14·2	12·6	7·4	7·3	7·4	9	5	9
Dalziel, -	2,023	1·3	1·2	2·4	2·4	1·2	·8	—	1	—
Hamilton, -	7,921	11	6·8	6	6·8	5·2	3·3	4	4	3
New Monkland, -	13,773	14·6	18·2	11·6	14·2	9·2	7·4	9	3	6
Old Monkland—										
East, -	2,435	2·2	1·2	1·8	2	2	1·4	—	2	3
Coatbridge, -	2,910	2·8	2·6	1·8	2·6	2·3	1·4	—	3	—
West, -	13,415	15·6	12	9·8	11·2	10·4	8·1	9	9	8
Shotts—										
East, -	4,667	2·8	2·8	1·8	3	3	2·1	2	4	2
Middle, -	3,605	1·2	1·6	1·6	2·2	1·1	1	2	2	1
Calderhead, -	6,347	3	4·2	5·2	5·4	4·2	5·2	3	—	4
West, -	4,660	4·6	5·8	4·8	4·6	3·1	3	2	6	2
North, -	1,303	2·2	2·2	1·8	1·6	1·3	1·3	—	—	1
TOTAL, -	218,817	203·2	193·0	187·6	175·0	168·1	161	140	131	147
Average Quinquennial Death-rate per 10,000 of Population, -	-	13·57	11·44	10·0	8·83	8·16	7·57	6·35	5·82	6·31

Deaths in relation to Notification.—The table given below shows the deaths classified according to the time which elapsed between the receipt of notification and the occurrence of death, and also the deaths of unnotified cases:—

Year.	Total Cases.	Fatal Cases.		Fatal Cases Notified— Period between Notification and Death.				
		Unnoti- fied.	Noti- fied.	1 Month.	1-3 Months.	3-6 Months.	6-12 Months.	Over 1 Year.
1908	301	43	141	40	36	21	18	26
1909	338	52	155	36	33	27	25	34
1910	370	30	131	34	30	16	22	29
1911	336	24	161	31	30	20	29	51
1912	365	22	138	30	20	26	19	43
1913	369	26	150	35	27	30	31	27
1914	274	16	123	21	21	17	17	47
1915	327	20	144	32	21	16	25	50
1916	340	17	149	32	25	20	22	50
1917	289	31	127	20	18	18	23	48
1918	395	50	124	29	22	17	16	40
1919	366	21	125	29	23	21	21	31
1920	355	17	144	43	19	19	21	42
1921	379	10	129	27	28	17	17	40
1922	368	11	120	37	21	17	17	28
1923	422	11	136	37	25	29	15	30

The proportion of cases notified only a few months before death remains high.

Of the total number of 1,419 pulmonary and 1,731 non-pulmonary cases dealt with throughout the year, the following table shows the changes which took place:—

	Cases in District on 1/1/23.	New Cases.	Total on Register.	Left District.	Died.	Off list. Disease arrested or diagnosis revised.	Cases in District on 31/12/23.
Pulmonary,	997	422	1,419	58	180*	72	1,109
Non- Pulmonary.	1,258	475	1,733	60	148*	163	1,362
	2,255	897	3,152	118	328*	235	2,471

* 33 pulmonary and 25 non-pulmonary cases died from some cause certified to be other than tuberculosis.

New Cases.—Of the 422 cases notified for the first time, 109, or 26 per cent., gave a positive sputum result; 89, or 21 per cent., gave a negative result. In 224, or 53 per cent., no sputum examination was made, owing to the great proportion of these cases being children who had no cough or spit.

Off List—

Pulmonary Tuberculosis, 72 cases.—In 50 instances the disease was arrested and the patients had been free of symptoms for a sufficiently long period to justify the removal of their names from the register.

The diagnosis was altered as follows in 22 cases:—Bronchitis, 5; convalescent pneumonia, 3; gas poisoning 1; chronic nasopharyngitis, 2; valvular disease of the heart, 1; no apparent disease, 10.

Non-Pulmonary Tuberculosis, 163 cases.—In 144 instances the disease was regarded as arrested, and in 19 the diagnosis was altered as follows:—Acute adenitis, 1; rickets, 1; tonsils and adenoids, 1; abscess, 3; foreign body in foot, 1; enteritis, 2; no apparent disease, 9; congenital hip joint, 1.

Cases under Observation.

In spite of the removal of names from the register for various causes, the cases dealt with each year have been steadily increasing, and since 1914 the number has risen from 421 to 1,419 in the case of pulmonary tuberculosis, and from 215 to 1,733 for non-pulmonary tuberculosis.

Duration of Illness at Death.—The table given below shows the fatal cases classified according to the total duration of illness:—

Duration.	MONTHS.										YEARS.					Un- known.
	1-3	3-6	6-12	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10			
Pulmonary, -	-	15	20	32	26	12	5	7	16	5	—	2	2	14	24	
Non-Pulmonary, -	-	49	18	17	25	10	5	7	—	5	5	2	1	4	—	

Family History of Tuberculosis.—Of the 422 pulmonary cases and the 475 non-pulmonary cases brought to notice during the year a family history of tuberculosis was obtained, as follows:—

	Cases with Tuberculosis in other members of family.	Cases with Tuberculosis in other relatives.	Percentage of cases with positive family history.
Pulmonary, -	112	27	26.5
Non-Pulmonary, -	94	24	19.7

Domiciliary and Dispensary Treatment.—Cases suitable for treatment at home, or who could not for any reason receive institutional treatment, were kept under observation by the Tuberculosis Officers and Nurse Inspectors, the latter of whom paid 19,791 visits during the course of the year. Patients remaining at home were encouraged to attend at the Tuberculosis Dispensaries, where they were kept under careful observation, had their weights recorded, and received medical examination from time to time. Five dispensaries—situated at Bellshill, Blantyre, Cambuslang, Larkhall, and Shotts—were in use, and the table below gives a record of the attendances:—

						New Cases.	Revisits.
Bellshill,	-	-	-	-	-	219	477
Blantyre,	-	-	-	-	-	137	1,151
Cambuslang,	-	-	-	-	-	175	1,081
Larkhall,	-	-	-	-	-	251	769
Shotts,	-	-	-	-	-	97	491
						—	—
						879	3,969
						<u>879</u>	<u>3,969</u>

During the year 287 cases received additional nourishment in the form of milk, eggs, butcher meat, and butter, at a total cost of £1,166 10s. In addition, supplies of malt and cod-liver oil were provided for those and other cases.

The following is an analysis of 311 cases attending for the first time at Cambuslang and Blantyre during 1923, and the comments thereon, have been made by Dr. Lang, Medical Officer to these dispensaries:—

311 patients attended for the first time, and of these 82 were notified cases of tuberculosis, and 229 were not notified.

CASES CLASSIFIED ACCORDING TO AGE.

	Years	0—5	—15	—25	Over 25
Notified,	21	24	15	22
Not notified,	59	100	23	47
		80	124	38	69

ADULT CASES CLASSIFIED ACCORDING TO SEX.

			Males.	Females.
Notified, ...	...	...	18	19
Not notified, ...	...	...	31	39
			<u>49</u>	<u>58</u>

CASES CLASSIFIED ACCORDING TO NOTIFICATION AND DIAGNOSIS.

	Tuberculosis		Non-Tuberculous	Total
	Pulmonary	Non-Pulmonary		
Notified,	29	27	26	82
Not notified—				
Sent by Doctor, ...	9	8	41	58
„ P.H. Staff, ...	4	10	45	59
„ Own Accord, ...	3	17	85	105
„ School Authorities, —	—	—	7	7
	45	62	204	311
	107			

Age and Sex.—So far as the figures go, it would appear that sex does not influence the willingness of a patient to attend the dispensaries.

The number of children brought for examination is disproportionately great, especially amongst cases which are not notified prior to their first visit to the dispensary. The criticism is not that too many children are examined, but that too few adults present themselves. The “candidates” for pulmonary tuberculosis may be found amongst children of school age, but their predisposition is to all infections, including tuberculosis, and we have at present no means of detecting which of the large numbers of “infects” will develop phthisis. The acute phthisis of adolescence is not characterised by a history of illness extending backwards to the period of school age, but the most chronic disease which appears in later years frequently has its earliest manifestations in adolescence. The prevention of tuberculosis by dealing with mal-nourished and debilitated children is a subject apart from the recognition of pulmonary tuberculosis in its earliest detectable stage, and for the latter purpose our investigations should be chiefly amongst adults. The passing of parental control and the advent of a wage-earning capacity are important factors in determining the small number of adolescents who present themselves, and while these influences are found from the above figures to be counteracted to some extent by the advice of the family doctor, it is to be feared that they are also at work in the case of the practitioners’ own consultations. Yet there are no years in which vaguely suspicious symptoms require more careful consideration, observation, and investigation than those of 15-25. The period is one of difficulty for problems other than the recognition of tuberculosis, and the efforts of workers in other fields to secure a well-informed adolescent community will be of material assistance to those engaged in tuberculosis work.

Notification and Diagnosis.—107, or 34 per cent. of the total, were found to have tuberculosis, and of these the majority (70 per cent.) were notified or sent to the dispensaries by medical practitioners. 34 cases of tuberculous disease were discovered amongst those who came of their own accord or were sent by members of the Public Health staff, and while some would have consulted their own doctors in the end, there is no doubt that the disease would have been much further advanced by the time they decided to do so.

The importance of an early diagnosis is sufficiently great to justify the examination of 171 persons for the purpose of discovering 34 cases of tuberculosis a month or two before the severity of the condition would have decided them to seek private medical advice. But the fact that 137, or 80 per cent. of those who were not sent by doctors, were found to be suffering from conditions other than tuberculosis should not be lost sight of either by the general public or the dispensary physician, to both of whom it serves as a reminder that attendance at a tuberculosis dispensary is far from signifying that the patient is tuberculous.

More than half the total attendances were made by persons who had not consulted their private practitioners, largely because the symptoms appeared to be of a trifling nature, and had been present for some time without producing gross ill-health. There is no reason to believe that this system of direct examination is not acceptable to the local doctors, who are aware that but for the dispensaries a proportion of these cases would fail to come under medical supervision, and others would delay until well-established disease had manifested itself. Moreover, no treatment is prescribed, and most of the patients are urged to attend their own doctor. Thus, while 140 persons were sent to the dispensaries by doctors, most of the 204 non-tuberculous patients were sent to their own doctors by the dispensaries.

The 59 persons who attended at the request of a member of the Public Health staff may be regarded as evidence of the propaganda which is being carried on at present, and the 105 who came of their own accord indicate to some extent the value of previous educative measures.

With regard to the high percentage of patients whose illnesses were found to be non-tuberculous, it is important to remember that a small proportion of proved cases is desirable, as there is implied a careful scrutiny of a large number of possible cases and a pro-

portionately smaller number of "missed" cases. The diagnosis of notified cases was altered only after repeated clinical, sputum, and X-ray examinations—a course of observation which the general practitioner cannot afford to undertake; and by communicating the results of these investigations to the doctors, it is hoped they will continue to refer all doubtful illnesses to the dispensaries.

Discharged Tuberculous Soldiers.—Among the cases notified for the first time during 1923 there were 22 discharged soldiers, all suffering from the pulmonary form of the disease. The relationship of the disease to military service is summarised, according to the Ministry of Pensions, thus:—Attributable to service, 14; aggravated by service, 2; non-attributable 4; undecided, 2.

Institutional treatment—in sanatorium or farm colony—was given to 11 cases, while in seven instances such treatment was offered but refused; two cases were considered unsuitable for admission to institution, one died a very short time after notification was received, and one left district shortly after notification.

The total number of ex-service men dealt with throughout the year as suffering from tuberculosis was 124. In addition to domiciliary visits made to those cases by the Tuberculosis Officers and attendances made by the men at the dispensaries, 386 home visits were made by nurse Inspectors—*i.e.*, 1·4 per cent. of the total visits paid by them.

Institutional Treatment.—The work at the various institutions dealing with cases of tuberculosis is described by the respective Physician-Superintendents in the institutional reports.

Refractories Industries (Silicosis) Scheme, 1919.

Seventeen examinations (8 males and 9 females) were carried out at the Birkenshaw Brick Works, Larkhall, and careful records were made of the conditions found. This is the only work in the Middle Ward which comes under the scheme.

County Sanatorium, Shotts,

Physician-Superintendent—JOHN A. C. GUY, M.B., Ch.B., D.P.H.

Visiting Physician—JOHN M'MILLAN, M.B., Ch.B.

Matron—Miss KEIR.

BUILDINGS AND GROUNDS.—The question of purchasing the coal beneath the present buildings is still under consideration. There has been no further damage to existing buildings, although there is still some general subsidence of the grounds taking place. The additional ground recently acquired opposite the Sanatorium has been drained and planted with trees, with the object of forming a screen from the prevailing westerly winds.

The general repairs and painting carried out during the year were somewhat extensive, as very little had recently been done, owing to the constant fear of further damage from mineral workings.

ACCOMMODATION.—This remains unchanged, and consists of 46 beds and 8 cots. Of the beds 30 are allocated for males, and 16 for females, but the relative proportion varies from time to time according to the number of patients of each sex requiring institutional treatment.

STAFF.—Medical staff is non-resident, and remains unchanged. Nursing staff:—2 sisters, 2 staff nurses, and 5 probationers. Domestic staff:—1 cook, 1 laundress, and 7 maids. Outdoor staff:—1 gardener-attendant, 1 assistant gardener, and 1 fireman.

ADMISSIONS AND DISCHARGES.—138 patients were admitted, and 143 discharged during the year. In addition there were 53 patients in residence at the commencement of the year, and 48 at the end of the year.

PLACE OF RESIDENCE.—Of those discharged the following list shows their places of residence according to parish:—

MIDDLE WARD.

Blantyre, - - - - -	15	Dalziel, - - - - -	1
Bothwell, - - - - -	54	Hamilton, - - - - -	5
Cambuslang, - - - - -	9	New Monkland, - - - - -	11
Cambusnethan, - - - - -	10	Old Monkland, - - - - -	13
Dalserf, - - - - -	9	Shotts, - - - - -	10
			137

OTHER DISTRICTS.

<i>Burghs</i> —Hamilton, 1; Coatbridge, 1; Rutherglen, 3; Airdrie, 1, -	6
Total, - -	143

AGE AND SEX ANALYSIS.

Quinquen. Periods.	Male.	Female.	Both Sexes.	Age Groups.	No.	Pulm.	Non- Pulm.	Non- Tub.	Doubtful.
1-5	7	4	11	Pre-School,	11	1	10	—	—
5-10	9	14	23	School, -	35	13	17	2	3
10-15	5	7	12						
15-20	11	9	20	Adolescence,	40	35	3	—	2
20-25	8	12	20						
25-30	7	7	14	Early, Maturity	43	37	3	—	3
30-35	4	8	12						
35-40	11	3	14						
40-45	2	1	3						
45-50	7	2	9	Late Maturity,	14	12	—	—	2
50-55	1	—	1						
55-60	2	—	2						
60-65	2	—	2						
Total,	76	67	143		143	98	33	2	10

DURATION OF RESIDENCE, in days, of all cases :—Average, 107; maximum, 828; minimum, 3.

Cases under treatment during the year were of the following type and numbers :—(a) Pulmonary tuberculosis, 98; (b) non-pulmonary tuberculosis, 33; (c) non-tuberculous conditions, 2; (d) doubtful tuberculosis (pulmonary), 10.

(a) PULMONARY TUBERCULOSIS—

(i) Cases classified according to duration of illness prior to admission :—

Months,	1-3	3-6	6-12	12-18	18-24	Over 24.	Indefinite.	Total.
Cases,	- 14	20	17	2	6	35	4	98

(ii) Classified according to earliest manifestations of disease :—Cough and spit, 53; influenza, 7; bronchitis, 6; pain in chest, 6; pneumonia, 5; hæmoptysis, 4; pleurisy, 4; general debility, 4; chill, 3; gassed, 2; abdominal tuberculosis, 1; tuberculosis of hip joint, 1; tuberculosis of bladder, 1; debility following mis-carriage, 1.

(iii) Cases grouped under a modification of the Turban-Gerhardt classification :—

	Number of Patients.	Disease Arrested.	Improved.	Stationary.	Worse.	Died.
Group I, - - -	50	—	49	1	—	—
Group II, - - -	18	—	16	2	—	—
Group III, - - -	30	—	3	3	10	14
Total, - - -	98	—	68	6	10	14

(iv) *Complications*.—42 cases showed complications grouped as follows :—

(a) *Tuberculous Complications*.—Laryngitis, 10; enteritis, 3; cervical adenitis, 3; abscess, 2; bladder, 1; lupus, 1; abdominal, 1; generalised tuberculosis, 1.

(b) *Non-Tuberculous Complications*.—Anæmia, 10; pregnancy, 2; cardiac disease, 2; nasal obstruction, 1; gangrene of lung, 1; enlarged tonsils, 1; melancholia, 1; chorea, 1; rheumatism, 1.

(v) *Sputum Examinations*:—39 cases had positive spits, 44 proved negative, and 15 had no sputum. The following table shows sputum analysis according to groups :—

	T.B. +	T.B. -	No Spit.
Group I,	7	29	14
Group II,	11	6	1
Group III,	21	9	—
Total,	39	44	15

(b) *NON-PULMONARY TUBERCULOSIS*.—Number of cases, 33, grouped as follows :—Abdominal, 17; cervical adenitis, 7; bones and joints, 5; skin, 2; organs, 2.

Abdominal.—17 cases. The cases were all children, ranging in ages from 2 months to 10 years. Diarrhoea complicated several cases. In six the diagnosis of tuberculosis was doubtful, and in these cases malnutrition and neglect were in all probability the causative agents necessitating their admission to hospital. Three of the cases developed peritonitis, and were transferred to the County Hospital, Motherwell. Two cases were transferred to Hairmyres Colony for educational purposes and further treatment. One case, a child aged 3 years, who developed peritonitis with fistula formation, proved fatal. The results in general were very satisfactory.

Cervical Adenitis.—7 cases. The cases, with one exception, were children. Two cases were transferred to Motherwell Hospital for operative treatment: the remainder made good progress, and in every case the improvement in general health was most marked.

Bones and Joints.—5 cases. The location of the disease showed 2 cases involving joints, both with sinus formation; one improved considerably, and was transferred to Hairmyres Colony, and the other was removed to Motherwell Hospital for operative treatment. One case of caries of the spine was complicated with a psoas abscess, but after a period of treatment showed marked improvement in general health. In the case of an adult aged 40 years, whose foot was amputated some years ago on account of tuberculous disease, the admission to hospital was due to an impaired state of health, and patient was subsequently discharged, greatly improved. The remaining case, an adult of 21, suffering from hip-joint disease, with sinuses present, showed little improvement after 96 days' residence.

Skin.—2 cases. Both patients were adults suffering from lupus, and in both instances the disease was confined to the face. The improvement under treatment was well marked.

Organs.—(a) 1 case of tuberculous disease of kidney. The patient, a female, 33 years of age, was confined to bed, and, being anxious to return home, was discharged, her condition showing practically no improvement.

(b) 1 case of tuberculous disease of eye. The patient, a child of 3 years, was admitted with conjunctivitis. The condition completely cleared up, and the diagnosis of tuberculosis was regarded as being extremely doubtful.

(c) NON-TUBERCULOUS CONDITIONS.—2 cases. Both were children. No evidence of tuberculosis could be detected, and the necessity for admission was purely the outcome of malnutrition and neglect.

(d) DOUBTFUL TUBERCULOSIS.—*Pulmonary*, 10 cases. Of these 9 showed signs of chronic bronchitis, and in one there was evidence of fibrosis, the result of being gassed during the war. The remaining case showed no signs of disease, and was taken home by her parents after 18 days' residence.

County Sanatorium, Stonehouse.

Resident Physician-Superintendent—J. R. SUTHERLAND, M.B.,
Ch.B., D.P.H.

Visiting Physician—A. H. McLean, M.B., C.M.

Matron—Miss SHORE.

BUILDINGS AND GROUNDS.—The only structural alteration made in the buildings during the year consisted in the closure of an entry to the patients' dining-hall, now used as a ward, and its conversion into a sanitary annexe. Owing to the increasing number of bed patients under treatment in this ward, such an annexe became absolutely necessary. Only minor changes were made in the grounds, principally transplantation of overcrowded trees and shrubs to more favourable sites.

STAFF AND ACCOMMODATION.—There are three pavilions in the institution capable of holding in all 80 beds and cots. At night-time each pavilion is in charge of one probationer nurse, a trained sister supervising the work of the three pavilions. During the day the nursing in every pavilion is controlled by a general trained sister, two of whom are each assisted by three probationers, and one by two probationers. The nursing staff consists now of a matron, four sisters, and eleven probationers. There are ten maids. This represents an increase of staff since last year of one nurse and two maids. The need for such arose from the growing amount of laundry work and the heavy nature of the nursing, to which reference was made in a past report. To accommodate this additional staff, as well as to relieve the already overcrowded nurses' home, a five-apartment house was taken at Caledonia Avenue, about half a mile from the sanatorium. This arrangement, which is not entirely satisfactory, will not, it is hoped, be of a permanent nature. The male staff consists, as formerly, of a visiting physician, a resident medical officer, an engineer, two gardeners, and a fireman.

PATIENTS TREATED.—During the year 138 patients were admitted, and 137 dismissed. At the end of the year there were 77 patients under treatment.

PLACE OF RESIDENCE.

Parish	No. of Patients.	Parish.	No. of Patients.
Avondale, - -	4	Glasford, - -	2
Blantyre, - -	11	Hamilton, - -	8
Bothwell, - -	29	Old Monkland, - -	4
Cambuslang, - -	15	Stonehouse, - -	19
Cambusnethan, - -	1	Shotts, - -	5
Dalserf, - -	30		—
		Total, - -	128

Of the remaining nine cases their residences were :—Upper Ward, 3; Burgh of Hamilton, 5; Ayrshire, 1.

AGE AND SEX.

Years.	Male.	Female.	Both Sexes.	Age Group.
- 5	16	17	33	Pre-School - 33
- 10	11	18	29	School age, - 66
- 15	12	25	37	
- 20	6	12	18	Adolescence, - 26
- 25	4	4	8	
- 30	—	2	2	Early maturity. - 10
- 35	—	2	2	
- 40	1	—	1	
- 45	2	3	5	
- 50	2	—	2	Late maturity, - 2
Total,	54	83	137	

DIAGNOSIS.—Eight patients were found not to be suffering from tuberculosis, but severally from lymphadenoma, lympho-sarcoma, melanotic sarcoma, infantile paralysis, sebaceous cyst, scoliosis, rachitis, and osteomyelitis of the femur.

SITE OF LESION, RESULT OF TREATMENT, AND DURATION OF
TREATMENT.

	No. of Cases.	Cured.	Imp.	L.S.Q.	Worse.	Died.	Average Duration of Treatment in days.
<i>I. Osseous System.</i>							
Cervico-dorsal Region, Spine,	2	1	—	—	—	1	738
Upper " " "	3	2	—	—	—	1	644
Mid. " " "	2	—	—	1	—	1	46
Lower " " "	2	2	—	—	—	—	418
Lumbar Region, Spine,	4	2	—	1	1	—	587
Sternum, - - -	1	1	—	—	—	—	106
Pelvis, - - -	3	—	2	—	1	—	184
Tibia, - - -	1	1	—	—	—	—	66
Cuboid, - - -	1	—	1	—	—	—	109
Metatarsal. - - -	1	1	—	—	—	—	160
Metacarpal, - - -	2	1	—	—	1	—	66
Phalanx of Finger, -	2	2	—	—	—	—	205
<i>II. Articular System.</i>							
Hip-joint, - - -	11	10	1	—	—	—	402
Knee " - -	8	4	3	—	—	1	248
Elbow " - -	2	1	1	—	—	—	189
Wrist " - -	2	2	—	—	—	—	235
<i>III. Lymphatic System.</i>							
Cervical Adenitis, -	63	33	27	2	1	—	101
Abdomen, - - -	14	6	2	1	1	4	82
<i>IV. Genital System.</i>							
Epididymis, - - -	2	2	—	—	—	—	121
<i>V. Multiple Open Lesions.</i>							
	3	—	1	—	1	1	200
Total, -	129	71	38	5	6	9	

NOTES.

Nine patients died during the year. All were admitted in an advanced state of the disease, four suffering from plastic peritonitis, one from tuberculous arthritis of the knee joint and peritonitis, and three from spinal tuberculosis. The disease of the last three was complicated, two of them having also pulmonary tuberculosis and one septicaemia following the incision of a psoas abscess prior to admission to sanatorium.

Six patients deteriorated in health. These were a male, 47 years of age, affected with a psoas abscess and caries of the lumbar region of the spine, cervical adenitis, scrophuloderma, and tuberculous disease of the ankle joint; a male, 49 years of age, with tuberculous disease of the sternum and glands and skin of the neck, the duration of whose illness was more than 20 years; a girl 11 years of age, with spina ventosa of a metacarpal bone and acute pulmonary tuberculosis; a female, 21 years of age, with an iliac abscess arising from disease of the iliac bone, and secondarily infected with pyogenic germs; a boy 7 years of age, ailing for two years with tuberculous plastic peritonitis; and a child aged 9 months, dismissed with meningitis succeeding tuberculous otitis media and cervical adenitis.

In five cases the period of treatment was too short to alter the disease in any apparent way. In two of these the part involved was the spine, in one the abdominal cavity and in two the glands of the neck. The time spent in sanatorium was respectively 16, 13, 11, 4, and 1 days.

38 cases were dismissed in an improved condition. Of these the majority, 27, were patients who on admission showed marked disease of several cervical glands, and who, while improving considerably in general health, yet had on discharge lessened but still palpable glandular swelling. Of the remaining 11 all but two might have recovered in sanatorium had they remained there for a sufficient time. In the two exceptions—a male and a female, both middle-aged, the former admitted for treatment of multiple open bone and glandular lesions, and the latter on two occasions for incision of an abscess proceeding from caries of the pubic bone—temporary improvement was all that could be expected. The nine still to be referred to consisted of a girl, aged 8 years, who, while convalescing from disease of the cuboid bone, was dismissed to Fife, where her family had taken up their abode; a girl 10 years of age, admitted merely for incision of a septic abscess of the hip-joint, and re-transferred to Dalserf Hospital, at which she made a good recovery; three patients with disease of the knee-joint, who were removed against advice after periods of 313, 55, and 36 days (one of these has since been readmitted); a boy aged 6 years, with tuberculous disease of the elbow joint and sinus formation, taken home at the end of 126 days and since readmitted; and two children with abdominal tuberculosis, who were taken home after 30 and 51 days, where they subsequently recovered.

Recovery occurred in 71 cases, *i.e.*, in 55 per cent. The results in the group of spinal cases were very good, deformity being noticeable in only one, in which the upper dorsal region was implicated. A psoas abscess was present in three, two of whom had in addition hip-joint disease and an external crural abscess. All were treated by rest and aspiration, and recovered in periods of 901, 620, and 608 days. The average period of treatment of all spinal cases was 658 days.

Ten patients who recovered from hip-joint disease did so after an average period of treatment of 401 days. They were all favoured by being young, only one being above 13 years of age. This patient, 21 years of age, was the only one dismissed with marked shortening of the leg. Her illness was a recrudescence of an illness 18 years previously, when the joint had become disorganised and dislocated. Two other cases showed trifling shortening, but there was clinically none in the rest.

Four patients recovered from tuberculosis of the knee joint. The joint was freely movable in three, subluxated and partially ankylosed in 1. The average period of treatment was 579 days.

One patient was dismissed after 253 days, having made a good recovery from tuberculous arthritis of the elbow joint of three years' duration. The mobility of the joint was then normal in all directions except in extension, in which it was reduced by 30 degrees.

Two patients, males, aged 41 and 18 years, recovered from tuberculosis of the wrist joint in 237 and 233 days. In both the treatment adopted consisted in rest in the proper position and aspiration of cold abscesses, which developed later. One of these patients was noted on admission to have had a foot and part of a leg amputated for tuberculosis of the ankle joint. Probably conservative treatment in a suitable environment would have saved the foot, and, had it failed to do so, would no doubt have prevented extension of the disease to the wrist joint.

Comment need be made on only two other cases, both of tuberculous epididymitis, occurring in patients aged 24 and 3 years. In both, conservative treatment by scraping was employed to begin with, and was successful in the younger patient, but failed to cure the older, in whom amputation of the testicle was finally done, with satisfactory result.

County Hospital, Dalserf.

Buildings.—This hospital has two wards, capable of holding in all 16 patients. Used prior to March, 1923, for the treatment of miscellaneous diseases, such as malnutrition of children, scabies, smallpox, and other infectious diseases, with which the County Hospital at Motherwell was not able to deal, it has since then been reserved for patients suffering from non-pulmonary tuberculosis. The staffing arrangements at the hospital made it desirable that there should be admitted only cases of the walking type, and this was done originally; but latterly, owing to the impossibility of finding accommodation elsewhere for severe bedridden cases, several of these also were admitted.

Staffing.—The staff consists of a matron, two probationer-nurses, a maid, and a gardener.

Admissions and Dismissals.—50 cases were admitted in 1923, and 34 were dismissed, leaving 16 under treatment at the beginning of 1924. These cases came from the following parishes:—

Parish.	No. of Patients.	Parish.	No. of Patients
Blantyre, - -	4	Dalserf, - -	15
Bothwell, - -	7	Hamilton, - -	2
Cambuslang, - -	2	Old Monkland, - -	3
Cambusnethan, - -	1		
		Total, - -	<u>34</u>

Age and Sex Distribution.—

Age in Years.	Males.	Females.
- 5	9	1
- 10	6	4
- 15	5	3
- 20	1	2
- 25	2	—
- 30	—	—
- 35	—	1
	<u>23</u>	<u>11</u>

DIAGNOSES.—On admission, 7 patients were found not to be suffering from tuberculosis, but from lympho-sarcoma, osteomyelitis of the femur, traumatic arthritis of the knee joint, septic sore of the foot, traumatic ulcer of the leg, malnutrition, and scoliosis.

26 patients were affected with non-pulmonary tuberculosis in some form and from a pleural effusion, probably of tuberculous nature.

In the table below are data as to the site of lesion and length and result of treatment.

Site of Lesion.	No. of Cases.	Cured.	Imp.	I.S.Q.	Worse.	Died.	Average Duration of Treatment in days.
Spine, - - - -	1	1	—	—	—	—	254
Iliac Bone, -	1	—	—	—	—	1	37
Metatarsal Bone and Astragalus, - -	1	1	—	—	—	—	221
Metacarpal Bone, - -	1	—	—	—	1	—	138
Hip-joint, - - -	2	1	—	1	—	—	98
Cervical Glands, - -	12	4	5	3	—	—	72
Peritoneum, - - -	8	3	2	—	—	3*	71
Pleura, - - - -	1	1	—	—	—	—	132

*2 died of Tuberculous Meningitis.

County Sanatorium, Uppertown, Longriggend.

Physician-Superintendent—J. THOMSON DICK, M.B., Ch.B., D.P.H.

Visiting Physician—RICHARD RAE, M.B., Ch.B., D.P.H.

Matron—Miss STEWART.

BUILDINGS AND GROUNDS.—Early in the year the extensions referred to in the 1922 Report were completed, providing the institution with modern boiler-house and steam laundry equipment. At the same time a new petrol-gas generating plant was installed, a small brick building being erected to house it.

PATIENTS TREATED.—The patients in residence at the beginning of the year numbered 45, and during the year 168 were admitted, making the total number under treatment 213; 168 patients were discharged, leaving 45 still in residence on 31st December. The number under treatment and the number discharged were the same as in 1922.

Of the 168 cases discharged, the type of disease was pulmonary in 98 and non-pulmonary in 42, while in 28 cases the diagnosis of tuberculosis was departed from. In discussing those of pulmonary type the cases are divided into three groups (Turban-Gerhardt classification modified) according to the extent of disease present on admission.

PLACE OF RESIDENCE.—Of the total cases discharged, 160 resided in the Middle Ward District, the places of residence according to parish being as follows :—

East Kilbride,	-	-	2	Dalserf,	-	-	-	8
Blantyre,	-	-	12	Hamilton,	-	-	-	1
Bothwell,	-	-	64	New Monkland,	-	-	-	18
Cambuslang,	-	-	9	Old Monkland,	-	-	-	24
Cambusnethan,	-	-	10	Shotts,	-	-	-	12
Total,								160

The remaining 8 cases were admitted from the Burghs of
Airdrie, 4; Hamilton, 2; Rutherglen, 1; Wishaw, 1; - - 8

168

AGE AND SEX.—In the following table the cases are shown classified according to age and sex, and according to age-groups for both sexes, each age-group also containing the pulmonary, non-pulmonary, and non-tuberculous cases referable to it:—

Quinquennial Periods.	Males.	Females.	Both Sexes.	Age-Groups.	Pulm.	Non-Pulm.	Non-Tub.
— 5	19	15	34	Pre-School Age, 34	1	17	16
— 10	8	5	13	School Age, 27	9	13	5
— 15	4	10	14				
— 20	9	13	22				
— 25	6	11	17	Adolescence, 39	29	9	1
— 30	6	8	14	Early Maturity, 54	46	3	5
— 35	12	6	18				
— 40	5	5	10				
— 45	7	5	12				
— 50	6	2	8	Late Maturity, 14	13	—	1
— 55	3	1	4				
— 60	—	1	1				
— 65	1	—	1				
	86	82	168		168	98	28

PULMONARY CASES.

DURATION OF ILLNESS.—The duration of illness recorded at the time of admission, and stated in monthly periods, was as follows:—

Months,	-	-	1-3	3-6	6-12	12-18	18-24	Over 24	Total.
Group I,	-	-	3	4	1	3	—	1	12
Group II,	-	-	1	4	6	5	—	24	40
Group III,	-	-	3	4	4	3	3	29	46
			7	12	11	11	3	54	98

EARLIEST MANIFESTATION OF ILLNESS.—Cough, 59; pleurisy, 13; debility, 8; hæmoptysis, 5; influenza, 3; pneumonia, 3; hoarseness, 2; dyspnoea, 2; dyspepsia, 2; loss of weight, 1; total—98.

GENERAL HEALTH ON ADMISSION.—The general health on admission was, with one exception, favourable in all the cases in Group I; was good or fairly good in 24 and poor in 16 cases in Group II; and fair in 10 cases and poor in 36 in Group III.

GENERAL RESULTS OF TREATMENT.—The general condition of the cases on discharge is shown in the following tabular statement:—

	Number.	Arrested or Quiescent.	Imp.	Stat.	Worse.	Died.
Group I,	-	-	12	6	6	—
Group II,	-	-	40	1	34	4
Group III,	-	-	46	—	19	12
			98	7	59	16
					7	9

DURATION OF RESIDENCE.—The duration of residence of all pulmonary cases, stated in days, was:—Average, 91; maximum, 412; minimum, 3.

COMPLICATIONS.—In 35 cases complications—tuberculous and non tuberculous—were present. Those of a tuberculous nature were:—Group I—pleurisy with effusion, 1; Group II—cervical adenitis, 2; laryngitis, 1; pleurisy, 1; spinal caries, 1; peritonitis, 1; Group III—laryngitis, 6; cervical adenitis, 3; peritonitis, 1; epididymitis, 1; ischio-rectal abscess, 1; meningitis, 1. The non-tuberculous complications were:—Cardiac disease, 4; pyorrhœa, 3; hernia, 2; gastritis, 2; otitis media, 1; pregnancy, 1; permanent tracheotomy, 1; menorrhagia, 1.

SPUTUM EXAMINATION.—The results of examination of spit were:—

	T.B.+	T.B. -	No Spit.	Not Examined.
Group I, - - -	1	2	9	—
Group II, - - -	9	24	6	1
Group III, - - -	38	6	2	—
	48	32	17	1

In all cases where repeated smear examination of the sputum failed to show the presence of tubercle bacilli, animal inoculation was carried out, but no positive results were obtained by this method.

A family history of tuberculosis was obtained in 31 cases—*i.e.*, in 31.6 per cent. of the total.

At the end of their period of sanatorium treatment, 17 cases were transferred to Hairmyres Colony, one case was transferred to Shotts Sanatorium, and one to Roadmeetings Sanatorium, Carlisle.

ALTERED DIAGNOSES.—In 14 cases admitted as suffering from pulmonary tuberculosis the diagnosis was altered as follows:—Bronchitis, 5; naso-pharyngitis, 2; empyema, 2; foreign body in lung, 1; unresolved pneumonia, 1; syphilis, 1; cardiac valvular disease, 1; no apparent disease, 1.

NON-PULMONARY TUBERCULOSIS.

The cases discharged numbered 56, *viz.*:—Abdominal, 24; bones and joints, 8 (spine, 2; hip, 2; elbow, femur, dactylitis, and multiple, 1 each); cervical adenitis, 5; lupus, 1; kidney, 1; bladder, 1; epididymitis, 1; general, 1; diagnosis revised, 14; total, 56.

ABDOMINAL.—24 cases, viz., 19 children, three adolescents, and two adults. In 14 cases the results of treatment were satisfactory, 10 being discharged with the disease arrested, and four much improved; the average period of residence of the former was 145 days, and of the latter 88 days. One boy, aged 8 years, who had very marked evidence of tuberculous peritonitis, but who improved markedly, developed tuberculous synovitis of the knee joint, and was transferred to the County Sanatorium, Stonehouse. In four cases, whose average stay was only 26 days, the condition on discharge was unchanged; three of the four were children, who were taken home by their parents against the advice of the medical officer. In three cases—two adults and one child—the disease became worse, and in one of the cases—a woman aged 27 years—symptoms of acute obstruction appeared, necessitating the patient's removal for abdominal section. Three deaths occurred, the patients being children aged 2, 8, and 9 years respectively, whose duration of residence averaged 40 days.

BONES AND JOINTS.—Eight cases. In two cases the disease was spinal; one, a boy aged 17 years, had had several cold abscesses in the dorso-lumbar region incised before admission, and had developed sinus formation with secondary infection; he was improving, but went home after two months' residence. The other case was a girl, aged 18 years, who was suffering from spinal caries, complicated by pressure on the cord, causing complete paralysis of both lower limbs; she was transferred to Stonehouse Sanatorium after a residence of 50 days. *Hip Joint*: Two cases. One was a girl, aged 11 years, who was transferred to Stonehouse Sanatorium a few days after admission, and the other was an old-standing case in an adult, who was admitted owing to general debility, and who was transferred to Hairmyres Colony after 32 days' treatment. *Elbow*: The elbow case was in a boy, aged 11 years, who had been operated on at the County Hospital, Motherwell, and who was discharged after a residence of 130 days, with the elbow ankylosed at right angles and the disease arrested. The case of tuberculosis of the *femur* was in a girl aged 14, who had been ill for over 5 years, and who on admission had two large discharging wounds in the thigh; both wounds healed well, and the girl's general health improved very markedly, but after a residence of 292 days she had to be transferred to the County Hospital, Motherwell, owing to the development of a deep-seated abscess, which required free drainage. The case of *dactylitis* was in a boy aged 1 year, both of whose hands were

affected; he was subsequently transferred to Stonehouse Sanatorium. The case of *multiple* tuberculous disease was a child aged $1\frac{1}{2}$ years, both of whose hands, right ankle, and left elbow joint were affected; she had been operated on frequently before admission, and after a residence of six months had to be transferred for further operative treatment.

CERVICAL ADENITIS.—Five cases. The cases, each of which did well, were children, three of whom had been operated on in the County Hospital, Motherwell. Their average duration of residence was 98 days.

OTHERS.—Five cases. There was one case of lupus in a girl aged 17, who had extensive disease of seven years' duration, affecting the skin of the face and neck; marked improvement resulted from treatment with brass paste. In the case of tuberculosis of the kidney—an adult male—there was improvement in general health, but the local condition remained apparently unchanged. The case of tuberculous cystitis was in the case of a man aged 23 years, who had previously had the right testicle removed on account of tuberculous epididymitis; on admission he suffered severely from vesical pain, and hæmaturia was present; tubercle bacilli were found in the urine; he was treated with detoxicated tubercle vaccine, and improved very considerably, being transferred to Hairmyres Colony after a residence of 140 days. The two other cases were (1) a case of tuberculous epididymitis, who after a short residence was transferred for operative treatment, and (2) a girl, aged 3 years, who was suffering from generalised tuberculosis; she weighed only 15 lbs., and died 5 days after admission.

ALTERED DIAGNOSES.—In 14 cases the diagnosis was altered as follows:—Chronic enteritis (non-tuberculous), 8; rickets, 4; rectal prolapse, 1; no apparent disease, 1. Two children suffering from chronic intestinal catarrh died; in one case a post-mortem examination was obtained, which showed marked thickening and engorgement of the mucosa of the terminal portion of the ileum and of the ascending colon; apart from fatty degeneration, none of the other organs showed any abnormal condition, and there was no evidence of tuberculosis.

Hairmyres Colony.

REPORT BY THE RESIDENT PHYSICIAN-SUPERINTENDENT, JAMES JOHNSTONE, M.B., Ch.B., D.P.H.

FOR THE YEAR 1923.

PATIENTS TREATED.

The number of patients under treatment during the course of the year is shown in the following tabular statement:—

In Residence 1st January.	Admitted During Year.	Discharged During Year.	In Residence 31st December.
177	339	297	219

PATIENTS CLASSIFIED ACCORDING TO PLACE OF RESIDENCE.

(a) *Middle Ward.*

Blantyre, - - - -	44	Hamilton, - - - -	9
Bothwell, - - - -	71	New Monkland, - - - -	5
Cambuslang, - - - -	31	Old Monkland, - - - -	15
Cambusnethan, - - - -	6	Shotts, - - - -	26
Dalserf, - - - -	13	Stonehouse, - - - -	1
Dalziel, - - - -	2	Total, - - - -	223

(b) *Other Districts and Burghs in County.*

Lower Ward, - - - -	8	Coatbridge, - - - -	2
Upper Ward, - - - -	2	Rutherglen, - - - -	7
Airdrie, - - - -	9	Hamilton, - - - -	13
		Total, - - - -	41

(c) *Outwith the County.*

Ayrshire, - - - -	2	Midlothian, - - - -	1
Berwickshire, - - - -	3	Perthshire, - - - -	3
City of Glasgow, - - - -	5	Renfrewshire, - - - -	3
Dunbartonshire, - - - -	9	Ross and Cromarty, - - - -	1
Dumfries-shire, - - - -	1	Stirlingshire, - - - -	1
Fifeshire, - - - -	2	Selkirkshire, - - - -	1
Inverness-shire, - - - -	1	Total, - - - -	33

NATURE OF DISEASE.

Of the 297 patients discharged during the year under consideration, 284 proved to be tuberculous, in 174 cases the disease assuming the pulmonary form, while in 110 it was non-pulmonary. The diseases affecting nine cases were as follows:—Bronchiectasis, 1; bronchitis, 3; malaria, 1; specific disease, 2; cardiac disease, 2. In the other four cases no tuberculous lesion was detected.

In the statistics which follow, only the 284 patients—discharged during the year—who proved to be tuberculous, are referred to.

SOCIAL CONDITIONS.

	1 Apt.	2 Apts.	3 Apts.	4 Apts.	5 and over.	Total.
Men, - - -	31	53	25	11	5	125
Women, - - -	9	4	3	2	—	18
Boys, - - -	29	41	7	1	2	80
Girls, - - -	22	35	4	—	—	61
Totals, - - -	91	133	39	14	7	284

OCCUPATIONS.

Miners, - - -	38	Waiter, - - -	1
Artisans, - - -	34	Asylum Attendant, - - -	1
Salesmen, - - -	5	Postman, - - -	1
Clerks, - - -	2		

PULMONARY TUBERCULOSIS.

AGE AND SEX DISTRIBUTION.

Quinquennial Periods.	Males.	Females.	Both Sexes.	Age Groups.
Under 5, - - -	1	—	1	Pre-School Age.
„ 10, - - -	19	7	26	School Age.
„ 15, - - -	17	13	30	
„ 20, - - -	15	6	21	Adolescence.
„ 25, - - -	15	1	16	
„ 30, - - -	15	2	17	Early Maturity
„ 35, - - -	21	1	22	
„ 40, - - -	19	—	19	
„ 45, - - -	8	—	8	
„ 50, - - -	9	—	9	Late Maturity.
„ 55, - - -	3	—	3	
„ 70, - - -	2	—	2	Post Maturity.
Totals, - - -	144	30	174	

DURATION OF ILLNESS.

		Months.		Years.		
Duration, - -	1-3	3-6	6-12	1-2	2-4	Over 4
Cases, - - -	10	8	21	39	38	58

INITIAL MANIFESTATIONS OF ILLNESS.

Cough, - - -	85	Following Gassing, - - -	4
Influenza, - - -	9	Laryngitis, - - -	1
Pneumonia, - - -	16	Lassitude, - - -	12
Pleurisy - - -	24	Loss of Weight, - - -	10
Hæmoptysis, - - -	11	Osseous Tuberculosis, - - -	1
Adenitis, - - -	1		

RESULTS OF TREATMENT.

The classification adopted is that of Turban-Gerhardt.

Stage of Disease.	Number of Patients.	T.B. Present.	Arrested.	Improved.	No Change.	Worse.	Died.
I, - - -	105	13	45	44	16	—	—
II, - - -	36	14	6	20	10	—	—
III, - - -	33	16	1	8	19	4	1
Totals, - -	174	43	52	72	45	4	1

COMPLICATIONS. — The undernoted table shows complications present in the different stages of the disease:—

	Stage I.	Stage II.	Stage III.	Total.
Adenitis, - - -	2	—	—	2
Cardiac Valvular Disease, - -	1	1	2	4
Deflected Nasal Septum, - -	—	—	1	1
Enlarged Thyroid, - - -	1	—	—	1
G.S.W., - - -	—	2	—	2
Gastritis, - - -	—	1	1	2
Ischio-rectal Abscess, - - -	—	—	1	1
Lipoma, - - -	—	—	1	1
Otorrhœa, - - -	1	1	2	4
Pleuro-pneumonia, - - -	1	—	—	1
Paresis, - - -	1	—	—	1
Teno-synovitis, - - -	1	—	—	1
Laryngitis, - - -	—	1	1	2
Totals, - - -	8	6	9	23

DURATION OF RESIDENCE IN DAYS.

Stage of Disease.	Average.	Maximum.	Minimum.
I, - - -	210	1,185	6
II, - - -	161	664	3
III, - - -	212	1,958	10

FAMILY HISTORY.

	Number of Cases Discharged.	Stage I.	Positive History. Stage II.	Stage III.	Percentage.
Men, - - -	108	13	6	8	25
Women, - - -	13	—	—	—	—
Boys, - - -	36	13	—	—	36
Girls, - - -	17	8	—	—	47
	174	34	6	8	28

NON-PULMONARY TUBERCULOSIS.

110 patients received treatment for the non-pulmonary form of tuberculosis.

AGE AND SEX DISTRIBUTION.

Quinquennial Periods.	Males.	Females.	Both Sexes.	Age Groups.
Under 5, - -	3	3	6	Pre-School Age.
„ 10, - -	33	26	59	} School Age.
„ 15, - -	13	16	29	
„ 20, - -	3	3	6	} Adolescence.
„ 25, - -	4	2	6	
„ 30, - -	—	—	—	} Early Maturity.
„ 35, - -	1	—	1	
„ 40, - -	—	—	—	
„ 45, - -	1	—	1	
„ 50, - -	1	—	1	} Late Maturity.
„ 55, - -	—	—	—	
„ 70, - -	1	—	1	Post Maturity.
Totals, - -	60	50	110	

The following table shows results of treatment according to the nature of the disease:—

Site.	Arr.	Imp	No Change.	Total
Gland—				
Cervical Region, -	37	33	10	80
Tracheo-bronchial, -	2	7	1	10
Joints—				
Hip, - - -	1	—	—	1
Elbow, - - -	1	—	1	
Bone, - - -	2	3	—	5
Genito-urinary System, -	1	2	—	3
Spine, - - -	1	—	—	1
Abdomen, - - -	4	1	1	6
Eyes, - - -	—	1	—	1
Ischio-rectal, - - -	—	1	—	1
Totals, - - -	49	48	13	110

FAMILY HISTORY

	Number of Cases Discharged.	Positive History.	Percentage.
Men, - - -	16	3	18
Women, - - -	5	1	20
Boys, - - -	42	12	28
Girls, - - -	47	18	38
	110	34	31

Included in the patients discharged during the year under consideration, were 61 ex-service men, a reduction of 17 on the previous year. Of that number, 33 were in Stage I; 12 in Stage II, and 9 in Stage III. Of the remaining 7, two were suffering from tuberculous glands, one from tuberculous testicle, while in four cases no definite tuberculous lesion was detected.

Of the 137 adult males discharged during the period under review, 115 registered for training. Fourteen were physically unfit for systematic training, but were engaged in occupational therapy, and eight were unable to work without prejudice to their condition.

WASSERMANN TEST.

A specimen of blood for the Wassermann test was taken from all adult patients on admission, with the undernoted results:—

Positive:—

Fixes three doses complement—4; six doses—4; and twelve doses—7

Total, 15. This is equal to 10 per cent. of adult admissions.

DENTAL TREATMENT.

During the year 103 adults and 104 children received treatment as follows:—Extractions, 540; fillings, 59; scalings, 42. In many cases, the patient's poor state of health had been greatly aggravated by dental caries. It is to be regretted that dental treatment stops short of supplying artificial dentures, as it seems an unsatisfactory state of affairs to extract a patient's teeth, and not to supply him with an efficient substitute.

X-RAYS.

In March an X-ray apparatus was installed. This has proved a very valuable aid in diagnosis. A radiosopic examination of all patients is made on admission, and in addition, in the majority of cases, a radiographic record, by means of a duplitized film. During the examination the clinical record is beside the patient, thus allowing the operator to have all the information before him.

There is no doubt that the ideal arrangement is for the clinician to make the X-ray examination, as a proper appreciation of the various signs can thus be obtained. A good example of the value of X-rays is illustrated in the following case:—An ex-service man was admitted to the Colony with suspected tuberculosis, thought to be due to a piece of shrapnel lodged in the lung. X-ray examination revealed that the shrapnel was external to the ribs.

LIGHT TREATMENT.

As we have so little sunshine in this country, we installed, in the month of March, carbon arc lamps. The light from these lamps being rich in ultra-violet rays, they are an excellent substitute for sunshine. One of the recreation rooms in Pavilion II was utilised for the purpose, the walls being painted with white enamel so as not to absorb the rays. Four open carbon arc lamps of 10 amps. each, similar to the type used for street lighting, were procured, and they were arranged in series, and suspended by means of a pulley and counterweight.

The treatment was given in two sessions, in the forenoon for females, and in the afternoon for males. The maximum number of patients treated at each session was eight. The patients sat on chairs about one metre from the lamps, the eyes being protected with dark glasses. The procedure was as follows:—

On the first day the patients were stripped to the waist and exposed for half-an-hour to the rays. On the second day the whole body was exposed and the treatment extended to one hour. Thereafter the exposure was increased half-an-hour daily until a maximum of $2\frac{1}{2}$ hours was reached. During treatment the patients turned every 15 minutes, thus giving equal exposure to the whole body.

An interesting feature was the degree of pigmentation of the skin, and the patients all had a healthy, bronzed appearance, similar to that obtained after prolonged exposure to the sun. The results, as detailed in the undernoted reports, were astonishing, particularly in cases of adenitis and lupus. It was noticed that in gland cases with sinuses, the discharge seemed to increase for a week or two and then gradually diminished, ultimately drying up and leaving a healthy scar. One or two cases of pulmonary tuberculosis were treated, but no improvement was noted. The average duration of treatment was four months, exposure being made daily.

D.S. (Adult Male).

14/3/23 Commenced Treatment.

Enlarged glands left axilla with one discharging sinus, right groin with three discharging sinuses, and left groin with discharging sinus.

15/5/23 Glands considerably reduced in size with excellent healing of all sinuses.

E. B. Girl, aet. 10½.

3/4/23 Commenced treatment.

Sinus right cervical region at site of old glandular abscess which had been discharging since 1/12/22.

27/4/23 Sinus well healed with excellent cicatrix.

N. F. Girl, aet. 9.

3/4/23 Lupus extending from malar bones both sides over cheeks and round mouth to chest wall below clavicles and encircling neck, also several patches on right arm. Had been treated with Brass Paste in 1921, then Picric Acid dressings. In December, 1922, had a course of Tuberculin. No beneficial effects noted.

3/4/23 Treatment commenced.

Improvement was almost immediate and by July the only really active part was at left angle of mouth at junction of mucous membrane and skin.

In November no activity noted.

Condition maintained.

M. H. Girl, aet. 6.

29/4/23 Commenced treatment.

Discharging sinuses. Two in left preauricular region, two in right submaxillary region, and one in left submaxillary region.

13/7/23 All sinuses healed.

4/9/23 Treatment discontinued.

W. P. Boy, aet. 9.

Large glandular abscess right side of neck occupying area between mandibular ramus and mastoid process and causing undue prominence of lobe of ear.

Incised, 19/2/23.

Sinus persisted with slight discharge, and little or no diminution in size of glandular mass.

16/5/23 Treatment commenced.

By 1/9/23 very little swelling was palpable, only a slight leak daily over an almost completely healed sinus.

18/9/23 Sinus well healed.

23/10/23 Treatment discontinued. Sinus well healed with firm healthy cicatrix—only a little fibrotic thickening, about size of marble.

A. M. Boy, aet. 10.

2/10/23 Glandular abscess left cervical region. Ruptured spontaneously under treatment on 7/10/23.

19/12/23 Resulting sinus healed with good cicatrix.

R. C. Boy, aet. 4.

9/7/23 Discharging sinus just posterior to mandibular ramus resulting from previous glandular operation.

13/10/23 Sinus well healed. Treatment discontinued.

There is no doubt that we have here a valuable substitute for heliotherapy, with this decided advantage that it can be carried on the whole year round.

HELIO THERAPY.

This treatment could be carried out to a limited extent only, owing to the absence of sunshine. Only on 25 days was heliotherapy possible, this being 5 days less than the previous year. Although the treatment was commenced a month earlier than last year (on 8th May), it had to be discontinued on 18th September, owing to the inclement weather. It is unfortunate that heliotherapy was so restricted, as the results in sunny climates prove that it is still the best treatment, especially in children suffering from non-pulmonary tuberculosis.

THE OPEN-AIR SCHOOL.

The School continues to take a prominent place in the Colony treatment of tuberculosis. There is no doubt that education under open air conditions, combined with treatment and careful medical supervision, is the ideal arrangement. Several of the children had never been at school before admission to the Colony, and they are now able to hold their own with normal children of similar school age. It is quite a marked feature of some tuberculous children that, although their physical condition is impaired, their mental condition is above the normal.

The average number of children attending the school during the year was 80, the maximum being 85, and the minimum 75. This year there was a complete change in the teaching staff, Miss Margaret Young leaving in April, and being replaced by Miss Elizabeth Lamont, and Miss Margaret Mooney leaving in November, being replaced by Miss Margaret Orr, M.A.

The relay time-table suggested by the Scottish Board of Health was adhered to, and is as follows:—

			Forenoon.	Afternoon.
Seniors,	-	-	9-11	2-4
Juniors,	-	-	9-11	2-4
Infants,	-	-	11-12	3-4

The afternoon session is devoted to sewing, kindergarten, drill, singing, and games.

BUILDINGS AND GROUNDS.

The recreation rooms in Pavilions I and II being no longer required for recreation purposes, were converted into bedrooms, with the exception of one room in Pavilion II, which was set apart for carbon arc lamp treatment. The total accommodation has thus been increased to 227 beds, made up as follows:—

Pavilion I—Males,	-	-	-	-	-	-	-	-	-	76
Pavilion II—Males,	-	-	-	-	-	-	-	-	-	66
Pavilion III—Women,	-	-	-	-	-	-	-	-	-	9
Children,	-	-	-	-	-	-	-	-	-	61
									—	70
Observation Block—Children,	-	-	-	-	-	-	-	-	-	15
Total Beds,										<u>227</u>

A much-needed improvement was effected in the pavilions, all the interiors being painted.

RECREATION HALL.—The Recreation Hall was in continual use during the year, recreation being very essential in the scheme of Colony treatment. During the winter months, in addition to frequent concerts and whist drives, there was a weekly cinematograph entertainment, and one would like here to express our gratitude to Mr. Mitchell and Mr. Ormiston for supplying the films free of cost.

This year a nine-hole golf course and putting green were laid out, and they have been very much appreciated by the patients.

In April, a canteen for the sale of tobacco, &c., was opened in the clerk of works old hut, the entire profits going to the Recreation Fund for the patients.

LAUNDRY.—Owing to the increased requirements of the Colony, a large washing machine was installed. Attention is called to the unsatisfactory condition of the calender. This machine was purchased second-hand at the opening of the Colony, having been built in 1892, and is of rather an antiquated pattern.

RAINFALL.

	Inches.		Inches.
January, - - -	3·85	July, - - -	3·63
February, - - -	3·60	August, - - -	6·49
March, - - -	2·30	September, - - -	5·48
April, - - -	2·94	October, - - -	6·68
May, - - -	1·53	November, - - -	4·11
June, - - -	1·32	December, - - -	2·80
		Total Rainfall for Year, -	— 44·73

STAFF.

In January, Dr. Arthur Anderson was appointed Assistant Physician. At the end of the year the institution staff, in addition to the Physician-Superintendent, Assistant Physician, and Matron, included the following:—

Sisters, - - -	5	Typist, - - -	1
Staff Nurses, - - -	3	Clerks, - - -	2
Nurses, - - -	15	Electric Power Station, -	5
Supervisor, - - -	1	Handyman, - - -	1
Maids, - - -	25	Porter, - - -	1
School Teachers, -	2	Attendant, - - -	1
		Total, - - -	65

COLONY DEPARTMENTS.

In each Department there is an experienced instructor, and the training of all the patients is carefully graded under the supervision of the Resident Physician-Superintendent. Each patient on commencing training works two hours a day, and this is gradually increased to a maximum of six hours, depending on the patient's physical condition. Labour records are kept, and a weekly report is sent to the Resident Physician-Superintendent showing the nature of the training, the number of hours work done by each patient, and a report on his progress. A consecutive record is kept of these reports. In addition each patient is supplied with a training book, giving details of his training, also any reasons for being excused work.

GARDENS.

The extensive grounds and market gardens, with a range of greenhouses, afford ample scope for the training of patients in the various branches of horticulture. At the beginning of the year a potting shed was erected, thus allowing the patients to work under cover during inclement weather. A motor lawn mower was purchased, and it has made a tremendous improvement in the appearance of the grounds.

Most of the garden produce is supplied to the Institution, and the surplus is sent to the market or sold privately. The staff consists of a head gardener, outside foreman and inside foreman, eight under-gardeners, two casual workers, and a carter.

During the year 70 patients enrolled for training, and the average duration of training was 113 days.

FOREST NURSERY.

Work in a forest nursery is very suitable training for tuberculous patients, as it is essentially an open-air occupation. During the year 41 patients enrolled for training, and the average duration of training was 149 days.

This year the inside of the bothy was painted; a new shed erected to protect the patients during inclement weather, and a one-room extension built to the caretaker's bothy.

In the nursery a large number of Norwegian and Sitka spruce were reared, also Scotch fir for the Middle Ward Afforestation Scheme at Camps, near Crawford. A portion of the nursery has been reserved for growing privet for hedges in connection with the various Housing Schemes.

This year it was decided to commence the growing of roses by budding, as it was considered to be congenial work for the patients, and it promised a quick financial return. There has been a gratifying increase in the number of private inquiries for trees, &c.

The patients receive a good training in the preparing of the ground, the sowing of seeds, and the tending of the young trees. The Afforestation Scheme at Camps provides a suitable outlet for patients who have completed their training, and this year a few have been transferred there, and are now in good health, and wage earners.

The staff consists of a head forester, who is also in charge of Camps, a foreman forester, 3 under foresters, a carter, and a caretaker.

POULTRY FARM.

During the year 65 patients enrolled for training, the average duration of training being 268 days.

In January, Miss Christina G. Nicolson was appointed poultry-maid, in place of Miss Fleming, who had resigned. This Department continues to be very popular, and by means of regular lectures and demonstrations, the patients receive a good training in the hatching and rearing of the various light and heavy breeds of poultry. At present there are white and black leghorns, Rhode Island reds, and wyandottes. This year two of the trainees were successful in obtaining posts on poultry farms. In the incubator house there are three incubators, two of 100 eggs capacity each, and one of 150. Altogether, during the year 889 chickens and 14 ducklings were hatched. At the end of the year the stock consisted of:—4 cockerels, 295 pullets, 2 cocks, 321 hens, 12 drakes, and 8 ducks—total 642 fowls.

PIGGERY.

This Department continues to show a good return, both financially and from the point of view of training patients. Owing to its limited size, only a small number of patients were employed. During the year 14 patients enrolled for training, the average duration of training being 192 days.

It is hoped in the near future to alter the old byre at the Cross Farm, so that it will provide additional accommodation, and thus permit of a larger number of patients receiving training. The department is run absolutely on commercial lines, so that the patients may be trained, not merely in pig-keeping, but in the financial side as well; so that when they leave the Colony, they may be equipped with a trade at which they can make a living. The department is under the supervision of the Farm Manager.

There were in stock at the end of the year 37 pigs, as follows:—1 large boar, 9 large black gilts, 1 large black sow, 1 large white sow, 5 middle white sows, 20 cross bred (large black and middle white) young pigs.

FARM.

This is a model dairy farm, and is licensed for the production of certified milk, which is the highest grade possible. At the last veterinary inspection we were successful in obtaining very high marks, viz., 94 per cent. The handling of the milk is undertaken entirely by a specially trained staff. This year the absence of proper isolation accommodation was remedied by the conversion of one of the horse boxes into a six-stall byre.

There has been considerable controversy regarding the suitability of farm work for tuberculous patients. Considering the type and class of patient admitted to the Colony it must be conceded that farm work is too arduous, and not at all congenial work for miners and artisans, the classes from which most of the patients are drawn.

During the year, only 4 patients were considered suitable, and in each case there was a history of previous farm work. It must, of course, be distinctly understood that none of the patients had anything to do with the handling of milk.

The stock is a pedigree Ayrshire herd, and the milk is regularly tested, and the results recorded by an official tester from the Scottish Milk Records Association, East Kilbride Division. The average percentage of butter fat was 3.75, and 5 cows yielded over 1,000 gallons of milk for the year.

The staff consists of farm manager, dairymaid, assistant dairymaid, byreman, milkers, 2 ploughmen, and 2 odd men.

To meet the increasing requirements of the Colony, there was a steady increase in the stock, and at the end of the year this was as follows:—1 bull, 38 cows, 31 queys, 6 calves, 5 geldings, 3 mares, 3 colts, 3 fillies.

GUINEA-PIG DEPARTMENT.

In previous years a few guinea pigs had been kept, mainly as pets for the children. This year, however, the Department was extended and worked on a commercial basis, two patients, under the supervision of one of the staff, doing most of the work. All the guinea-pigs on reaching maturity were despatched to the County Laboratory for bacteriological purposes. The figures were:—

Sent to County Laboratory, -	-	-	-	-	-	138
Stock in hand at end of Year, -	-	-	-	-	-	119

It is hoped to extend this Department in the future as the demand far exceeds the supply. A large number of guinea-pigs was reared under open-air conditions, and they were able to withstand the cold in a remarkable manner.

INSTITUTION WORKSHOPS.

As a satisfactory meat supply for the Institution is now being obtained, the slaughter-house provided at the farm has been converted into a workshop, for undertaking general Colony repairs, *e.g.*, repairing windows, painting, &c. An endeavour was made to employ patients who had had a previous training in this class of work. During the year 18 enrolled in this Department.

GARAGE.

The work in the garage was done entirely by two patients trained in the Colony. They were in charge of the motor lorry, and in addition to driving, they did all the running repairs.

INDUSTRIAL WORKSHOPS.

The workshops were formally opened on 11th October by Captain Walter E. Elliott, M.C., Parliamentary Under-Secretary for Health for Scotland. The workshops, which make provision for occupations suitable to the patients' physical condition, are divided into the following sections:—Motor Repair Department, 12 trainees; Carpentry, 12; Boot-Repairing, 6; Basketmaking, 3; Toymaking, 3—Total 36.

As these workshops are engaged in vocational training, the men work for six hours per day, divided into two spells of three hours, 9-12 and 2-5.

There is a competent instructor in charge of each Department. In the short period under review it is difficult to give a detailed report, but so far as one can judge the Industrial Workshops take a very prominent and successful place in the training of tuberculous patients. All the Departments are very popular, and there is a waiting list for most of them.

MOTOR REPAIR DEPARTMENT.—We were successful in obtaining an old Wolseley car for demonstration purposes. This has been completely dismantled and re-assembled, and the trainees have now reached the stage of learning to drive. So far, there has been very little repair work beyond the requirements of the Colony, but it is to be hoped that in the near future an opportunity will be given of overhauling some of the cars belonging to the District Committee, &c.

Already one or two trainees have been promised posts on completion of their training, and judging by the interest they take in the lectures and demonstrations, one feels confident that they will make good.

CARPENTRY DEPARTMENT.—In this Department the trainees are instructed in rural carpentry and cabinetmaking. It is well equipped with a circular saw, band saw, wood turning lathe, and hand mortising machine. To enable us to compete in the open market, it is essential that a planing machine should be installed, as an excessive amount of hand planing rather overtaxes the strength of the trainees.

We have been successful in obtaining orders for lockers, tables, bookcases, &c., for other County Institutions, and private individuals. Regular lectures and demonstrations are given, and the trainees are shown how to use the various tools, and the methods of preparing the wood, &c. Attached to the Department there is a shed for seasoning the timber.

BOOT-REPAIRING DEPARTMENT.—This Department is turning out a large amount of work. In the meantime the trainees are encouraged to do as much hand work as possible. So far, the repairs average about 30 per week. By vigorous canvassing, we have been able to obtain a large number of orders from people living in the neighbourhood, but one feels that more work might be obtained from the other County Institutions. Several of the trainees have a definite promise of work on completion of their training.

BASKETMAKING DEPARTMENT.—In this Department the trainees are shown how to make various types of baskets, trays, &c. Most of the articles are made of cane, but we hope soon to be able to grow our own willows and make baskets of this material. Towards the end of the year there was such a demand for basket trays that it was almost impossible to cope with it.

TOYMAKING DEPARTMENT.—In this Department we are concentrating on the making of heavier toys, such as engines, barrows, and bedsteads, as in this class of goods especially, the home-made article is superior to the foreign product. The trainees are shown the various stages of manufacture, from cutting out the wood to the

final stage of painting and varnishing. There was a good demand for toys at Christmas, but we hope to get into touch with some of the warehouses who could take supplies all the year round.

One of the most satisfactory results of vocational training is noted in the improved mental and physical condition of the patient. This is largely due to the fact that the work is congenial, the patient being able to realise his ambition, and be trained in an occupation which he chooses for himself, provided his physical condition is satisfactory. It is obvious that the scheme of vocational training is not complete, unless one can offer some prospect of obtaining work on leaving the Colony, and in this connection it seems desirable that an After Care Committee should be formed for the purpose of obtaining posts for the patients, before they leave the Colony. There is no doubt that it would be a great stimulus to the patient's training if some such arrangement could be made.

Veterinary Inspection of Dairy Herds.

The veterinary inspection of dairy herds was carried out by the County Veterinary Officer and an assistant.

Owing to the prevalence of foot-and-mouth disease throughout the district, the inspection of dairy herds by the veterinary staff was suspended for a considerable period, which explains the decrease in the number of herds examined.

The records show that 246 dairy herds, containing 5,286 cows, were examined. As on former occasions, samples of milk were drawn from all udders which, upon examination, showed conditions suspicious of tubercle. In this way 28 samples of milk were taken, and sent to the bacteriological laboratory, where, after examination, 10 were found to contain tubercle bacilli.

In all positive cases certificates were granted by the Veterinary Surgeon, in terms of Article 3 of the Dairies, Cowsheds, and Milk-shops Order, 1899.

Cows with abnormal conditions of the udder other than tubercle were also recorded, and the results are as shown in the following table :—

INSPECTION OF DAIRY HERDS, 1923-24, CLASSIFIED ACCORDING TO PARISH.

PARISH.	Herds.	Cows.	Suspected Tubercle.						Cows with Abnormal Conditions of Udder.					
			Samples of Milk.	Result.				Tubercle.	Atrophy.	Mammitis.	Induration N.T.	Eruption on Teats.	Total.	
				Smear.		Biological.								
				+	-	+	-							
Avondale, - -	43	1,077	3	1	2	1	1	1	34	2	12	16	65	
East Kilbride, -	42	1,100	8	3	5	3	5	3	64	3	25	15	110	
Glasford, - -	4	50	1	...	1	...	1	..	4	...	1	...	5	
Stonehouse, -	...	..	...	...	...	..	..	..	...	..	...	...	...
First Division, -	89	2,227	12	4	8	4	7	4	102	5	38	31	180	
Blantyre, - -	2	17	...	...	...	...	...	...	...	...	...	...	...
Bothwell, - -	60	967	2	...	2	...	...	...	37	19	7	1	64
Cambuslang, -	22	405	3	...	3	...	2	...	26	4	3	5	38	
Cambusnethan, -	10	196	1	...	1	...	...	...	13	1	1	3	18
Dalserf, - -	8	244	...	...	...	...	...	...	8	3	8	1	20
Dalziel, - -	5	126	2	1	1	1	...	2	5	...	1	2	10	
Hamilton, - -	14	398	4	...	4	1	3	1	19	1	5	1	27	
Second Division, -	121	2,353	12	1	11	2	5	3	108	28	25	13	177	
New Monkland, -	10	169	2	1	1	1	...	2	5	..	...	1	8
Old Monkland, -	14	304	2	1	1	1	1	1	18	1	3	5	28	
Shotts, - -	12	233	...	...	...	...	...	..	7	2	2	...	11
Third Division, -	36	706	4	2	2	2	1	3	30	3	5	6	47	
Middle Ward, -	246	5,286	28	7	21	8	13	10	240	36	68	50	404	

The total figures for abnormal conditions of udder include 18 cases of suspected tubercle, which gave negative results, and are therefore classified as induration.

These abnormal conditions and the number of cows affected were as follows:—Atrophy, 240; mammitis, 36; induration, N.T., 68; and eruption on teats, 50—total, 394. Adding to these figures the 10 affected with tubercle, the number of cows presenting abnormal conditions of the udder was 404, or 7·6 per cent.

Maternity and Child Welfare.

Staffing Arrangements.—A note of the staff engaged in Maternity and Child Welfare work is contained at the beginning of the Report on the Midwives (Scotland) Act. Apart from several changes in the personnel of the Nurse Health Visitors, there are no alterations to be recorded in the whole-time staffing arrangements. Seven District Nursing Associations continued to give part-time assistance in domiciliary visitation, and in September arrangements were completed with the Glasford and Chapelton District Nursing Association for similar services.

Births Registered.—There were registered the births of 6,218 children—males, 3,210, and females, 3,008, which is equivalent to a birth-rate of 27·6 per 1,000 of the population. This is the lowest birth-rate which has ever been recorded in the Middle Ward District, and shows a decrease of 0·7 compared with the rate for 1922. The rates for the past five years are shown in Table A, which also shows the rates for quinquennial periods from 1891 to 1920. There were 325 illegitimate births—males, 154, and females, 171, which is equivalent to 5·2 per cent. of the total births.

Births Notified.—The number of notifications received was 6,245. Of these, 6,027 were notifications of live-born children, the remainder—218—being notifications of still-births. The percentage of births notified (excluding still-births) to births registered was 96·9. The sources of notification were as follows:—

Doctors.	Midwives.	Handy-women.	Parents.	Institutions.	Other Sources.	Total
1,363	3,453	85	739	314	291	6,245

Table M1 shows the births registered, births notified, visits made by the Nurse Health Visitors, the attendant at confinement as ascertained at the first visit, deaths registered, and the infantile death-rate, the information being tabulated according to registration districts.

TABLE MI.

REGISTRATION DISTRICTS.	BIRTHS.		NUMBER OF VISITS.				ATTENDANT AT CONFINEMENT.				INFANT DEATHS.		
	Regis-tered.	Notified. Alive.	First.	Subsequent.		Special.	Total.	Doctor alone or with Handy- woman.	Doctor and Midwife.	Handy woman.	B.B.A. Woman.	Rate per 1,000 Births.	
				Infants.	Mothers.								
Avondale, - - -	119	107	94	521	9	14	638	53	19	22	-	5	42.0
East Kilbride, - -	104	96	84	513	10	51	658	56	15	8	5	11	105.7
Glasford, - - -	37	35	32	222	5	4	263	17	10	2	3	2	54.0
Stonehouse, - - -	113	112	111	796	33	13	953	39	26	44	2	8	70.8
<i>First Division,</i> - -	373	350	321	2,052	57	82	2,512	165	70	76	10	26	69.7
Blantyre, - - -	547	543	537	4,619	256	517	5,929	36	102	384	15	37	67.6
Bothwell, - - -	529	512	504	6,356	346	228	7,434	36	114	340	14	40	75.6
Bellshill, - - -	735	711	721	6,668	293	458	8,140	92	247	379	3	68	92.5
Holytown, - - -	543	521	473	5,017	257	313	6,060	90	130	247	5	38	69.9
Cambuslang, - - -	695	671	681	7,045	189	504	8,419	183	119	371	8	58	83.4
Cambusnethan, - -	314	305	318	4,820	47	135	5,320	182	67	68	1	26	82.8
Calderhead, - - -	125	123	136	860	19	66	1,081	122	2	11	1	16	120.8
Dalserf, - - -	137	138	146	1,255	12	45	1,458	59	38	45	4	14	102.1
Larkhall, - - -	431	423	445	3,123	57	255	3,880	176	110	154	5	33	76.5
Dalziel, - - -	41	45	47	468	10	7	532	11	14	20	1	1	24.4
Hamilton, - - -	236	225	250	2,413	73	38	2,774	51	44	145	10	9	38.1
<i>Second Division,</i> - -	4,333	4,217	4,258	42,644	1,559	2,566	51,027	1,038	987	2,164	67	340	78.4
New Monkland, - -	406	392	403	2,595	62	162	3,222	56	93	247	5	31	76.3
Old Monkland (East), -	81	93	82	372	12	23	489	5	16	60	1	3	37.0
Do. (Coatbridge) - -	82	83	66	178	-	7	251	12	9	45	-	3	36.5
Do. (West), - - -	352	344	321	2,446	130	76	2,973	126	20	175	-	27	76.7
Shotts (East), - - -	131	128	129	459	1	32	621	90	14	23	2	8	61.0
Do. (Middle), - - -	69	59	58	563	13	21	655	47	2	7	2	8	115.9
Do. (Calderhead), - -	230	219	189	1,422	22	69	1,702	173	5	10	1	19	82.6
Do. (West), - - -	121	106	104	2,290	27	45	2,466	63	11	28	2	14	115.7
Do. (North), - - -	40	36	25	112	3	2	142	2	2	21	-	2	50.0
<i>Third Division,</i> - -	1,512	1,460	1,377	10,437	270	437	12,521	574	172	616	13	115	76.0
	5,056	5,007	5,056	55,123	1,886	3,085	66,060	1,777	1,229	2,856	90	481	77.3

Reference to the table shows that the total number of domiciliary visits made by the staff during the year was 66,060—an increase of 5,584, compared with the previous year, although there were actually 146 fewer births. The special visits referred to numbered 3,085, and were made in connection with the following conditions. Ante-natal cases, 1,725; infant death enquiries, 509; ophthalmia neonatorum, 398; conjunctivitis, 186; squint, 135; puerperal fever, 53; discharging ears, 15; whooping-cough, 9; impetigo, 5; adopted babies (first and revisits), 50.

Of the total births registered, viz., 6,218, particulars connected with the births have been recorded in 5,956 cases. Of this number it has been found that 1,777 (29·8 per cent.) were attended by medical practitioners alone or assisted by handywomen; 1,229 (20·6 per cent.) by doctors assisted by certified midwives; 2,856 (47·9 per cent.) by certified midwives; and 90 (1·5 per cent.) by women not on the midwives roll; in the case of 4 births no attendant was present. As pointed out in the previous year's report, the figures given are those obtained from the Nurse Health Visitors' records, and differ to some extent from the figures in Table 1 of the Report under the Midwives (Scotland) Act, the information for which is obtained from the notification forms.

Comparison with previous years shows that there is remarkably little change in the figures giving the classification of the attendants at birth. The percentages for the past five years were as follows:—

	1919	1920	1921	1922	1923	
Cases attended by Midwives,	46·8	42·9	43·4	49·5	47·9	per cent.
Do. Doctors,	50·5	54·6	53·5	48·9	50·4	„
Do. Handywomen,	2·6	2·5	3·1	1·4	1·5	„

Although 90 births were attended by handywomen, the proportion of this to the total, viz., 1·5 per cent., is small. The circumstances regarding every such birth were enquired into, and except in a very few cases it was found that the handywomen had attended under conditions of undoubted emergency. In the few exceptions referred to, the handywomen were reprimanded and warned that any repetition would be followed by prosecution.

Infantile Mortality.—Deaths of infants under the age of one year numbered 481, which is equivalent to an infantile mortality rate of 77·3 per 1,000 births. This is the lowest rate which has ever been recorded in the District (see Table A, page 6). For purposes of comparison, the rates for the past ten years, arranged in registration districts, are shown in the following tabular statement, Table M II, which also gives the rates for each of the three divisions

TABLE MIL.—INFANTILE MORTALITY RATES ARRANGED ACCORDING TO REGISTRATION DISTRICTS
AND DIVISION.

Registration District.	YEAR										
	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	
Avondale, - - -	84.1	99.0	43.8	74.5	77.6	33.7	96.3	62.5	59.7	42.0	
East Kilbride, - - -	93.0	94.7	62.5	46.2	24.0	60.6	90.9	34.0	91.8	105.7	
Glasford, - - -	25.6	66.6	108.1	—	88.2	103.4	—	25.6	71.4	54.0	
Stonehouse, - - -	121.7	111.1	90.0	84.2	84.9	187.5	105.2	86.5	67.7	70.8	
<i>First Division,</i> - - -	92.2	98.8	69.4	63.8	67.4	100.0	86.4	58.5	71.4	69.7	
Blantyre, - - -	125.1	138.6	101.6	144.1	107.2	139.8	118.6	105.8	95.3	67.6	
Bothwell, - - -	96.6	155.6	125.4	91.6	101.4	120.9	114.9	84.8	107.2	75.6	
Bellsbill, - - -	173.9	159.2	166.9	105.4	143.7	119.9	135.7	117.7	126.4	92.5	
Holytown, - - -	117.3	127.2	129.6	93.6	100.0	121.1	84.6	74.4	111.4	69.9	
Canbuslang, - - -	120.9	127.2	75.1	122.3	92.9	86.9	90.0	70.7	89.8	83.4	
Cambusnethan, - - -	136.7	115.1	92.7	96.2	100.0	113.2	59.1	84.2	81.9	82.8	
Calderhead, - - -	122.3	70.4	75.1	98.5	128.7	85.7	111.1	96.7	64.5	120.8	
Dalserf, - - -	140.8	97.0	108.4	156.5	134.3	85.2	78.6	114.6	90.9	102.1	
Larkhall, - - -	157.1	105.8	93.3	106.8	79.9	84.3	112.8	95.4	120.2	76.5	
Dalziel, - - -	112.5	102.9	90.9	175.4	102.9	129.0	175.6	93.0	205.8	24.4	
Hamilton, - - -	107.6	89.6	83.3	114.9	97.9	81.6	89.1	106.6	105.9	38.1	
<i>Second Division,</i> - - -	130.0	129.5	110.3	112.0	105.7	109.5	104.2	92.6	104.3	78.4	
New Monkland, - - -	97.5	79.4	95.3	67.5	98.4	62.2	85.6	82.9	106.0	76.3	
Do. (East) - - -	139.5	131.8	51.2	31.7	88.6	84.5	131.8	118.8	120.8	37.0	
Do. (Coatbridge), - - -	85.1	131.5	190.5	58.8	68.5	29.4	76.1	96.1	131.5	36.5	
Do. (West) - - -	86.9	116.2	115.6	127.6	120.1	66.6	103.7	87.5	95.3	76.7	
Shotts (East), - - -	90.9	86.6	71.4	59.7	104.9	84.8	98.8	70.1	94.2	61.0	
Do. (Middle), - - -	120.8	80.4	100.0	42.3	117.6	94.1	72.1	13.6	118.4	115.9	
Do. (Calderhead), - - -	116.8	187.1	105.0	91.9	92.2	127.6	86.9	63.9	102.9	82.6	
Do. (West), - - -	147.4	118.8	83.3	88.0	100.0	100.0	117.2	113.3	79.1	115.7	
Do. (North), - - -	100.0	187.5	78.9	74.1	58.8	86.9	46.5	13.1	147.0	50.0	
<i>Third Division,</i> - - -	104.0	113.8	99.8	82.5	101.5	77.4	94.0	89.0	103.3	76.0	
<i>Total for Middle Ward,</i> - - -	122.0	124.1	105.7	102.7	102.8	101.0	100.9	89.9	102.1	77.3	

Table M III shows the deaths arranged according to group-causes and age-periods :—

TABLE MIII.

CAUSE OF DEATH.	AGE PERIODS.									
	WEEKS.				Total.	MONTHS.				Total.
	- 1	1-2	2-3	3-4		1-3	3-6	6-9	9-12	- 12
1. Prematurity, - -	74	12	5	5	96	9	—	—	—	105
Congenital Malformation, - -	13	6	2	3	24	7	2	—	1	34
Atelectasis, - -	6	—	1	—	7	—	—	—	—	7
Injury at Birth, -	8	—	—	—	8	—	—	—	—	8
2. Atrophy, Debility, and Marasmus, -	39	9	5	2	55	15	5	3	1	79
3. Diarrhœa, - -	1	3	1	—	5	15	13	17	7	57
Other Digestive Diseases, - -	2	—	—	—	2	5	3	1	1	12
4. Pneumonia, - -	—	1	—	1	2	6	8	14	18	48
Bronchitis, - -	—	1	1	2	4	5	4	2	6	21
Other Respiratory Diseases, - -	—	1	—	—	1	—	—	—	—	1
5. Tuberculosis, -	—	—	—	—	—	—	1	—	1	2
Pulmonary, - -	—	—	—	—	—	—	2	4	6	13
Meningeal, - -	—	—	—	1	1	—	5	1	2	8
Abdominal, - -	—	—	—	—	—	—	—	—	—	—
Others, - -	—	—	—	—	—	1	—	—	1	2
6. Convulsions, - -	3	—	—	—	3	2	2	2	2	11
Meningitis, - -	—	—	—	—	—	—	3	1	—	4
Other Nervous Diseases, - -	—	—	—	—	—	—	—	—	—	—
7. Measles, - -	—	—	—	—	—	—	—	6	7	13
Whooping-cough, -	—	—	—	—	—	5	2	6	9	22
Diphtheria, - -	—	—	—	—	—	—	—	2	2	4
Scarlet Fever, -	—	—	—	—	—	—	—	—	—	—
8. Syphilis, - -	—	—	—	—	—	2	—	1	—	3
9. Violence, - -	—	—	—	—	—	—	—	—	—	—
10. All other causes, -	6	2	3	3	14	5	1	4	3	27
	152	35	18	17	222	77	51	64	67	481

Of the 481 deaths recorded, 222 took place during the first month of life and 77 during the next two months, making a total of 299 deaths of children under three months of age. Compared with the previous year the number of deaths from developmental and nutritional diseases shows a small decrease, while there was a slight

increase in the number of deaths from diarrhœa and digestive changes. An increase also occurred in the deaths from tuberculosis—25 as compared with 11 in 1922—but as against that there was a fall in the number of deaths from convulsions, meningitis, &c., from 42 to 15. It is in the number of deaths from respiratory diseases and from measles and whooping-cough that the greatest decrease is found, and it is to the diminished prevalence of those diseases that the fall in the infantile mortality rate is very largely due; the deaths from the diseases referred to were 128 fewer than in 1922.

Maternal Mortality (including 17 deaths from Puerperal Septicæmia).—The causes of maternal deaths may be divided into certain groups, and the following table shows the group causes together with the number of deaths referable thereto for each year since 1910. The registered births, the birth-rates, and the death-rates per 1,000 births are also given:—

TABLE MIV.—MATERNAL DEATHS FOR EACH YEAR SINCE 1910, ARRANGED ACCORDING TO GROUP-CAUSES; NUMBER OF BIRTHS, BIRTH RATES, AND MATERNAL DEATH RATES EXPRESSED PER 1,000 BIRTHS.

Registered Cause.	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
Puerperal Sepsis, - -	21	9	13	10	13	7	10	10	7	15	23	25	20	17
Albuminuria of Pregnancy and Eclampsia, - -	5	4	1	4	3	4	6	3	6	7	5	5	10	10*
Hæmorrhage, - - -	7	7	5	11	5	8	6	3	2	4	6	4	11	3
Cardiac Failure and Shock, - -	2	3	2	4	4	2	3	—	3	2	—	6	6	6
Abortion, - - -	—	3	2	2	3	1	—	—	1	2	1	—	2	1
Toxæmia of Pregnancy, - -	3	—	1	4	3	1	2	1	—	—	2	3	1	5
Other Diseases and Accidents of Pregnancy, -	3	4	7	4	5	10	8	4	4	7	7	2	4	8
<i>Total, - - -</i>	41	30	31	39	36	33	35	21	23	37	44	45	54	50

* Albuminuria, 4; Eclampsia, 6.

Registered Births, - -	7,309	6,981	7,111	7,001	7,388	6,684	6,572	6,072	6,420	6,410	7,562	7,023	6,364	6,218
Birth Rates, - - -	36.1	34.3	34.9	33.8	35.3	31.9	31.4	28.6	30.2	29.8	35.0	32.1	28.3	27.6
Death rate per 1,000 births (Puerperal Sepsis), -	2.87	1.28	1.82	1.42	1.75	1.04	1.52	1.64	1.09	2.34	3.04	3.56	3.14	2.73
Death rate per 1,000 births (excluding Puerperal Sepsis), - - -	2.73	3.00	2.53	4.14	3.11	3.89	3.80	1.81	2.49	3.43	2.77	2.84	5.34	5.31
Death rate per 1,000 births <i>Total, - - -</i>	5.60	4.29	4.35	5.57	4.86	4.93	5.32	3.45	3.58	5.77	5.81	6.40	8.48	8.04

The maternal mortality rate for the whole country has shown an increase during recent years; in the Middle Ward District during the quinquennial period 1914-1918 the average rate was 4·43, and during the succeeding quinquennial period the rate was 6·85, the maximum being reached in 1922, when the rate rose to the high figure of 8·48 deaths per 1,000 births. If the causes of death are divided into septic and non-septic conditions, it is found that there has been an increase under both headings, the maximum rate from the former, viz., 3·56, being reached in 1921, and that from the latter, viz., 5·34, during 1922. The principal conditions apart from puerperal sepsis giving rise to the increased mortality rate are albuminuria of pregnancy and eclampsia, hæmorrhage, and cardiac failure; during 1923 there was also a marked increase in the deaths due to toxæmia.

Early in the current year there was issued by the Scottish Board of Health the "Report of the Departmental Committee on Puerperal Morbidity and Mortality," the Committee having been appointed to "enquire into the incidence of puerperal morbidity and mortality "in Scotland, with special reference to the causes contributing "thereto, and to suggest any remedial measures." Evidence relative to the conditions prevailing in the Middle Ward District was given to the Committee by Dr. Dick, Dr. Lang, Dr. Reid, and Dr. Thomson, and the evidence submitted and the suggestions made might be summarised as follows:—

In the case of puerperal sepsis the opinion was expressed that in recent years the condition is not only being more freely notified, probably as an indirect result of the Midwives Act, but is also being more correctly certified as a cause of death, and that it would appear, from an examination of the Registrars' Returns of deaths during past years, that deaths from puerperal sepsis were not always certified as such, and that, in certain cases, it might even be difficult, from the information given on the certificate, to decide whether the cause of death was actually connected with the pregnancy or child-birth.

In order to determine what factors might have an influence on the incidence of the disease, an analysis was made of certain facts relative to all the births reported on by the Health Visitors during the year 1922, and of all the notified cases of puerperal sepsis during the five years 1918-1922. The results are given in the following table:—

TABLE MV.—INFORMATION WITH REFERENCE TO 5,872 BIRTHS WHICH OCCURRED DURING 1922, AND TO 248 CASES OF PUERPERAL SEPSIS WHICH OCCURRED DURING THE YEARS 1918-1922.

	Number of Records Examined.	Ages.			Duration of Pregnancy in Months.					Health during Pregnancy.				
		Under 20	20-25	25-30	30-35	35-40	Over 40	6	7	8	9	Good.	Fair.	Bad.
Births, ... 5,872	149	1,673	1,683	1,190	927	250	250	9	99	47	5,717	5,194	508	170
	2.5°/	28.4°/	28.6°/	20.2°/	15.7°/	4.2°/	4.2°/	0.1°/	1.6°/	0.8°/	97.3°/	88.4°/	8.6°/	2.8°/
Puerperal Sepsis, ... 248	16	68	58	47	29	30	30	20	6	6	216	172	54	22
	6.4°/	27.5°/	23.3°/	18.9°/	11.6°/	12°/	12°/	8°/	2.4°/	2.4°/	87°/	69.3°/	21.7°/	8.9°/
NUMBER OF PREGNANCY.														
1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	Over 12	Instrumental Delivery.	
1,330	1,207	742	541	478	376	300	264	198	158	112	62	104	312	649
22.6°/	20.5°/	12.6°/	9.2°/	8.1°/	6.4°/	5.1°/	4.5°/	3.3°/	2.6°/	1.9°/	1.0°/	1.7°/	5.3°/	11.0°/
													5.3°/	3.2°/
87	46	21	20	15	15	11	6	7	6	3	3	8	13	54
35°/	18.5°/	8.4°/	8°/	6°/	6°/	4.4°/	2.4°/	2.8°/	2.4°/	1.2°/	1.2°/	3.2°/	5.2°/	21.7°/
													5.2°/	6°/
CLEANLINESS OF HOUSE.														
SIZE OF HOUSE.—APARTMENTS.														
	1	2	3	4	Over 4	Clean.			Fair.			Bad.		
	2,557	2,618	493	133	71	4,989			729			154		
	43.5°/	44.5°/	8.4°/	2.2°/	1.2°/	84.9°/			12.4°/			2.6°/		
	110	112	18	3	5	197			44			7		
	44.3°/	45.1°/	7.2°/	1.2°/	2.0°/	79.4°/			17.7°/			2.8°/		

Instrumental Delivery—Age and Number of Pregnancy.—Statistical and hospital evidence indicates that the incidence of sepsis is about twice greater in cases delivered by forceps than it is in non-instrumental cases; that it is more likely to occur towards the beginning and end of child-bearing life; and that it is most frequent in first and second confinements. Of the births given in the above table, first births formed 22 per cent., and first and second births 43 per cent., whereas sepsis which occurred in connection with first pregnancies formed 35 per cent., and in connection with first and second pregnancies 53 per cent. of the total sepsis cases.

Illegitimacy.—It is generally accepted that the unmarried mother is more exposed to risk during pregnancy and child-birth than the married woman, but the small figures available do not bear out this fact so far as sepsis is concerned.

Duration of Pregnancy.—Sepsis appears to be more liable to occur in connection with premature births than in the case of those taking place at full time, but its association with abortion cannot be stated, as it is impossible to determine the latter's numbers.

Health of Mother during Pregnancy.—The incidence of puerperal sepsis is greater among women whose health has been unsatisfactory prior to confinement than among those who during pregnancy have enjoyed good health.

Still Births.—Puerperal sepsis is more likely to follow the birth of a still-born than the birth of a living child; 6 per cent. of the total cases of puerperal sepsis occurred in association with still-births, and still-births formed 3.2 per cent. of the total births investigated.

Attendant at Confinement.—Analysis of the figures relative to professional attendance since the commencement of the Midwives (Scotland) Act shows that there is no material difference in the incidence of sepsis in the practice of midwives as compared with the practice of doctors.

Size and Condition of House.—Information relative to the occurrence of puerperal sepsis according to the home conditions shows that the size of the house has no bearing on the incidence of the disease, and that household cleanliness is of very little, if any, significance.

Occupation.—The great majority of mothers in the Middle Ward District are engaged solely in household duties, and it is not possible to reach any definite conclusion with reference to the effect of occupation. From the information available it would not appear that in this District occupation has any bearing on puerperal morbidity.

General.—The principles of the prevention of puerperal sepsis are, in a word, surgical cleanliness; they are cheap, and in most cases available, so that, theoretically at least, the disease ought to be one of the most easily prevented. In addition, the fact that parturition is, in the vast majority of cases, a physiological process seems often to be ignored and recourse be had to artificial assistance, which, when given, may not be carried out with the strict aseptic precautions which would be observed in the case of a surgical operation. In practice, of course, the other side of the picture cannot be ignored—a busy practitioner, confinements requiring his attention night after night, and the patient and her friends demanding immediate relief—chloroform and forceps, which he may frequently apply hastily and against his better judgment. In addition, the “nurse” assisting the practitioner is, in a great many instances, an unqualified woman, and, though nominally such a woman does nothing by way of internal examination in practice, she may and does act in the full capacity of midwife. During 1923, in the Middle Ward District 1,777 births were attended by doctors whose assistants were unqualified women, who, from their partial knowledge and usually unbounded faith in their own abilities, are a potential source of danger to their patients.

Non-septic Conditions.—The principal non-septic causes of maternal death are albuminuria, eclampsia, hæmorrhage, and shock. The first two are eminently preventable, provided the mother comes under observation at a sufficiently early period of pregnancy. Unfortunately very many mothers do not engage a midwife or doctor until the close approach or actual occurrence of labour, or until severe albuminuria or eclampsia has manifested itself, by which time it is too late to adopt preventive measures, and action is limited to treatment of the established disease. To prevent such conditions, the only sound line to pursue is to have every mother brought under supervision at a reasonably early stage of pregnancy to establish an adequate system of ante-natal care. The same observations apply to conditions giving rise to deaths from shock, because it is otherwise impossible to determine a woman's fitness for her confinement, to detect intercurrent disease, to ascertain pelvic measurements, to

correct faulty positions of the child, and generally to give her the best possible chance to overcome successfully the strain of childbirth. In dealing with hæmorrhage there is greater difficulty, owing to its frequently sudden onset, but in many cases there is ample hospital evidence that care of the case is so delayed or so imperfectly carried out that on admission to hospital the patient's condition has reached a very serious stage indeed.

The following suggestions, *inter alia*, were made to the Committee :—

That attention should be given to obtain greater accuracy in the certification and classification of deaths due to or associated with pregnancy and childbirth. That into every case of maternal death there should be an inquiry by a competent and experienced investigator, capable of visualising all sides of the question and capable of giving advice. Such enquiries would result in the attention of the attendant at the birth and of the public being specially directed towards the importance of maternal deaths, and it would gradually elicit greater care of maternity cases by the people themselves, by medical practitioners, and by midwives. Midwifery service as carried out at present by midwives is under supervision, and it is desirable that, similarly, supervision should be effected in the case of medical practitioners. The number of cases attended both by doctors and midwives might well be limited to so many per annum. This is specially so in the case of medical practitioners, who, owing to the hurry and stress of night work, are tempted to resort to instrumental interference in many cases where nature herself might be allowed to act. The midwifery outfit of practitioners is not in every case an ideal one, and a standard outfit might well be demanded of a practitioner attending confinements—*e.g.*, he should be required to carry a sterilizer.

It is not uncommon for a doctor attending cases to have, as his assistant, an unqualified woman. This is permitted under the Midwives Act, but it ought to be made statutory that no person, whether under the supervision of a medical practitioner or not, be allowed to attend a confinement unless qualified, except under circumstances of emergency.

For purposes of ante-natal care every practitioner and midwife when engaged for a confinement should be required to notify the fact to the Local Authority. Public opinion may not yet be sufficiently advanced on the question, but it seems desirable that every mother should be required to engage an attendant before at least the sixth

month of pregnancy, and it would be reasonable to make the payment of maternity benefit under the National Health Insurance Acts contingent on the possession of a certificate from a qualified attendant that the expectant mother had presented herself for examination during the last three months of pregnancy.

The risk of maternal death is less if confinement takes place in a well-staffed institution than if it takes place at home under the care of a doubtfully competent midwife or a harassed practitioner, and there ought to be greater facilities for such institutional confinements. Greater facilities should be given for the delivery of normal cases in small hospitals where such is desired for any reason whatever.

The training of midwives ought to be more general, and should extend for a period of at least twelve months in the case of women who have had no previous training. A preliminary examination for all intending midwives should be compulsory, to eliminate persons who might afterwards fill the ranks of the untrained.

Within a specified period—say five years—the Central Authority should remove from the roll all midwives who are illiterate or who fail to show sufficient knowledge of midwifery by examination.

In the report issued by the Departmental Committee the following is a summary of the recommendations made:—

(1) That when death occurs during pregnancy or within four weeks after its termination the fact of pregnancy should be communicated to the Registrar along with the fact of death.

(2) That representation be made to the International Committee concerned with the classification of causes of death with a view to securing uniformity of method as well as of nomenclature in compiling official statistics of puerperal deaths.

(3) That every Local Authority or combination of Local Authorities administering a scheme of Maternity Service and Child Welfare establish an Ante-natal Clinic or Ante-natal Clinics wherever there is a sufficient concentration of population to justify such a measure.

(4) That the Ante-natal Departments at the Maternity Hospitals should be fully organised and provided with sufficient accommodation for observation, treatment, and teaching, and that such teaching be made an essential part of the practical work of both medical student and pupil midwife.

(5) That payment of Maternity Benefit be made conditional on the woman engaging a certified midwife or a qualified medical practitioner at least twelve weeks before the date of the normal term for delivery.

(6) That every Local Authority, or combination of Local Authorities, administering a scheme of Maternity Service and Child Welfare provide facilities for the testing of specimens of urine, and that, where practicable, this provision be made through the Ante-natal Clinics.

(7) That Local Authorities should extend the assistance given to midwives by guaranteeing a minimum income to those whom they regard as satisfactory, and who depend on their earnings for a livelihood.

(8) That Local Authorities consider the desirability of paying a modified fee to midwives in respect of any cases lost to them by transfer to clinics and hospitals.

(9) That amendment of the Midwives (Scotland) Act be considered with a view to removing the possibility of unqualified midwifery practice.

(10) That Local Authorities be empowered to furnish on loan sterile outfit and equipment at a reasonable charge, which should be remitted in necessitous cases.

(11) That the Central Midwives Board for Scotland be asked to consider the desirability of amending Rule E21 so as to provide for the summoning of medical assistance for the repair of all tears of the perineum.

(12) That attendance of the student on ante-natal cases should be organised and made compulsory.

(13) That consideration be given to the question of utilising the accommodation available in Poor Law Hospitals for maternity cases.

(14) That legislation be considered to make the conduct of Maternity Homes illegal unless they are registered by the Local Authority and conducted to their satisfaction.

(15) That every death occurring within four weeks after the termination of pregnancy should be fully investigated by a person designated by the Local Authority, and the facts communicated to the Scottish Board of Health.

It will be noted that, of the recommendations given above, a number were already in operation in the Middle Ward District, and others were under consideration prior to the issue of the report.

With reference to the maternal deaths which occurred during 1923, the facts are considered in the following statements which deal (1) with deaths from non-septic cases, and (2) with deaths from puerperal septicæmia.

Non-Septic Causes.—As it is only quite recently that this subject has been inquired into from a preventive point of view, the record of deaths due to or associated with pregnancy and confinement are, more or less, statistical, and of little clinical value, but in reviewing them from the statistical standpoint, certain interesting facts are revealed regarding the more predominating causes, viz. :—

The largest number of deaths were due to (1) eclampsia and (2) cardiac failure, each of which accounted for 6 deaths or 18 per cent. of the total. In the cases of eclampsia there is no record as to the period at which the disease occurred, and it is impossible to classify them under the clinical headings of ante-partum, post-partum, or inter-partum. Again, in the cases of cardiac failure, there is no history of any previous heart disease, but it should be noted that in one instance death occurred during the administration of chloroform anæsthesia.

Toxæmia of Pregnancy accounted for 5 deaths, or 15 per cent. Here again, the scanty information available merely discloses that death occurred, but does not mention the stage of pregnancy at which the disease manifested itself. One case, however, admitted to the County Hospital, Bellshill, died within 36 hours of the onset of the disease, and a post-mortem examination was performed. The results were interesting. The patient was an elderly primipara seven months pregnant. The uterus was pale with areas of hæmorrhage throughout the body of the organ. The liver showed similar hæmorrhagic areas and was very adherent to the diaphragm. The kidneys did not show this to the same degree, but were pale and waxy looking. The brain was congested, and areas of hæmorrhage were evident throughout the entire surface. There was marked hæmorrhage into the pons, and it was this in all probability which caused the very rapid fatal termination. The interior of the uterus appeared to be normal, and the placenta adherent; the child was healthy.

Nephritis accounted for 4 deaths, this condition in one case being accompanied by gastric catarrh and hæmatemesis. Pulmonary

embolism gave rise to 2 deaths. 3 deaths were due to hæmorrhage, 1 from accidental hæmorrhage (accompanied by chronic nephritis and albuminuria, 1 from ectopic gestation (hæmorrhage and shock), and one from secondary hæmorrhage. The remainder of the deaths were due to the following causes, and in each group there was one death:—rupture of the uterus; phlegmasia alba dolens (both legs affected); insanity (puerperal delirious mania); hyperemesis gravidarum; heart disease; pernicious anæmia; and abortion (accompanied by acute gastro-enteritis). In the case of the death due to abortion, the condition was complicated by the presence of acute gastro-enteritis. The latter condition preceded the onset of abortion, and its cause was not definitely ascertained.

Puerperal Septicæmia. — The number of cases of puerperal septicæmia reported during the year was 62, representing an incidence rate of 9·9 per 1,000 births; this is a decrease of 0·9 per 1,000 births compared with the previous year's figure. In addition two notifications were received of patients temporarily resident within the Middle Ward District.

The following table shows the incidence and death-rates since 1918. While the incidence of the disease continued on a high level there has during the past three years been a fall in the fatality rate followed a year later by a fall in the death-rate:—

Year.	Total Cases.	Rate per 1000 Births.	No. of Deaths.	Fatality Rate.	Death Rate per 1000 Births.
1918	14	2·1	5	35·7	0·7
1919	37	5·7	15	40·5	2·3
1920	60	7·9	25	41·6	3·3
1921	68	9·6	25	36·7	3·5
1922	69	10·8	20	28·9	3·1
1923	62	9·9	17	27·4	2·7

53 or 85·4 per cent. of the cases were removed for hospital treatment, 52 to the County Hospital, Motherwell, and 1 to Lightburn Joint Hospital.

In 10 cases a doctor alone or with the assistance of a handy-woman, conducted the confinement and in each of these cases, delivery was effected by means of forceps. In 19 cases a doctor and certified midwife were in attendance and in 14 of those cases forceps were used; in addition, in two of the forceps cases, the placenta was adherent; 3 cases were normal, and in the remaining 2, while the birth of the

child was normal, the placenta had to be removed manually. In 21 cases the attendant was a certified midwife and in 2 cases a handy-woman; 3 of the births took place in an institution, while in 7 cases, 4 of which were abortions, there was no attendant present. The figures show that of the total 29 cases in which a medical practitioner was in attendance, instrumental or manual interference was carried out in all except 3 cases.

The incidence of the disease according to the number of pregnancy at which it occurred was as follows:—

No. of Pregnancy,	1	2	3	4	5	6	7	8	9	10	11	12	20	Total.
No. of Cases,	-	22	8	6	1	3	3	5	3	3	5	1	1	62

The age distribution of the cases and deaths was:—

	Years	Under 20	20-25	25-30	30-35	35-40	Over 40	Total.	
Cases,	-	-	4	15	17	7	13	6	62
Deaths,	-	-	1	2	4	2	4	4	17

5 cases occurred among unmarried mothers, giving an incidence rate of 15·3 per 1,000 births. One unmarried mother died.

Stillbirths.—The total number of notifications of stillbirths received during the year was 218, and those were sent in by:—doctors, 71; midwives, 80; health visitors, 11; parents, 4; institutions, 52.

Inquiries by the Nurse Health Visitors were made into 185 cases and the following particulars obtained:—The births occurred at full term in 124 cases, in 22 at the eighth month, and in 26 at the seventh month; in 13 cases the duration of pregnancy was indefinite. The attendant at birth was as follows:—doctor and midwife, 65; doctor alone, 47; midwife alone, 34; and institutional cases numbered 39. The confinement was ascertained to have been normal in 97 cases and abnormal in 70, instrumental delivery taking place in 53 of the latter.

The pregnancy at which the stillbirth occurred is shown as follows:—

Pregnancy, ...	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	and over	Total.
Stillbirths, ...	48	23	18	14	15	20	11	9	14	8	5		185

In 153 cases no previous stillbirth had occurred, in the remaining 32 cases, previous stillbirths had taken place, viz., 1 in 16 cases; 2 in 9; 3 in 4; 4 in 2; and 8 in 1.

Only in 7 cases were the mothers engaged in other than domestic duties.

In 103 cases it was difficult or impossible to determine any definite cause which might result in stillbirth, and inquiry into the majority of those did not show any departure from normal health in the case of the mother or any abnormality at the time of confinement. In 84 cases, the probable causes of stillbirth might be stated thus:—Delayed labour necessitating the use of forceps, 18; albuminuria and eclampsia, 20; malpresentation, 8; cord round neck, 6; prolapse of cord, 5; prematurity, 5; placenta praevia, 4; ante-partum haemorrhage, 4; endometritis, 3; hydramnios, 2; pernicious vomiting, 1; uterine displacement, 1; anencephalus, 5; hydrocephalus, 2. In 37 cases the child's body was macerated at birth.

Ophthalmia Neonatorum.—Cases, 61; rate per 1,000 births, 9·8. This represents a decrease of 1·1 per 1,000 births compared with the previous year.

Of the total cases reported, 24 (39·3 per cent.) were notified by doctors, and 15 (24·5 per cent.) by certified midwives, while 17 (27·8 per cent.) were discovered by the Nurse Health Visitors; 3 were notified from the County Hospital, Bellshill, and 1 each from the Medical Officers of Health, Glasgow, and the Burgh of Motherwell. In 19 cases a doctor alone, or with the assistance of a handywoman, was in attendance at the confinement—that is, the disease developed in connection with 1 per cent. of the total number of confinements conducted by doctors. Doctors and midwives were present at the birth in 9 cases, representing 0·7 per cent. of the total cases attended by doctors and midwives; a certified midwife alone was present at the birth in 30 cases, which is 1·0 per cent. of the total midwives' cases. Of those 30 attendants 20 were bona fide midwives and 10 were certified. 3 cases occurred in institutions, each of which was non-gonococcal in origin.

Each case was visited by the Nurse Health Visitor at the earliest possible moment. In 17 cases the eyes were found to be normal or almost normal, and quite free from discharge; in 44 cases discharge was present (in 4 being profuse), and from those swabs were obtained for bacteriological examination.

The result of examination showed that the ophthalmia was gonorrhœal in character in 4 cases, while in 24 cases some organism other than the gonococcus accounted for the presence of the diseased condition of the eye. In the remaining 16 cases, pus cells were found in the discharge, but no organism was discovered to account for their presence. Those latter cases, although the bacteriological result was negative, were regarded clinically as being due to gonorrhœal infection,

Of the cases treated at home the great majority were of mild or moderately mild type, but in a few the inflammatory condition was somewhat severe. In only 2 of the cases, both of which were comparatively mild, was the gonococcus found to be the causal organism. Treatment, which was carried out by the parents under the supervision of the Nurse Health Visitors, terminated in complete recovery in all cases. In the 2 referred to as being due to gonococcal infection the inflammatory condition of the eyes cleared up in two weeks and in three weeks respectively. The total number of domiciliary visits paid to the 57 cases was 398.

Four cases treated in hospital were all of severe type; in two the discharge contained gonococci; and in the other two no infecting organism could be found. The two latter and one of the former made a good recovery, but in the case of the other the disease resulted in marked loss of vision of one eye. The circumstances of this case were as follows:—

Case A., Chapelhall.—This child was born on 29/1/23, and was first visited by the Nurse Health Visitor on 1/2/23, when the eye condition was found to be normal. On 6/2/23, the midwife notified the case as ophthalmia neonatorum, and immediately after receipt of the ophthalmia notification the nurse again visited and found the left eye very red and swollen, there being a great deal of discharge. She thereupon advised that a doctor should be called and suggested the removal of the child to the County Hospital, Motherwell. The parents, however, objected to the child's going to Motherwell Hospital, on the grounds that it was a fever hospital and that they would not be allowed to visit. Owing to this objection, the local doctor had the child removed to the Glasgow Eye Infirmary, but as this institution does not admit such cases it was sent on to the Baird Street Reception House. By this time ulceration of the cornea had occurred. Two days later, the child was transferred to the County Hospital, Motherwell, where, on admission, there was a large corneal ulcer of the left eye. The right eye was normal. It is quite evident that the responsibility for the loss of vision in this case lies with the parents, and in such cases removal to hospital ought to be compulsory. Removal could hardly be compelled on the ground of infection, but action might be possible under Section 54 of the Public Health (Scotland) Act, in that a child suffering from acute gonococcal ophthalmia might be held to be without proper lodging or accommodation, in so far as this could be interpreted to mean accommodation suitable for the proper treatment of the patient. It

probably could not be held to refer in such a disease as ophthalmia neonatorum to the prevention of the spread of infection, and it is doubtful whether compulsory removal to hospital could be obtained under the existing statutory powers.

Ante-Natal Cases.—The importance of proper care and attention during pregnancy is emphasised from the Departmental Committee's recommendations already quoted. The Nurse Health Visitors staff have carried out a certain amount of ante-natal supervision in the mothers' homes, 1,725 domiciliary visits having been made for this purpose. Numerous ante-natal cases have also been kept under observation at the Maternity and Child Welfare Centres, but this work has been seriously handicapped by the absence of suitable accommodation, a question which is at present receiving close consideration.

In connection with the supervision of ante-natal cases, attention has been given to the examination of urine. The relatively high number of deaths from albuminuria and eclampsia emphasises the importance of such routine examination during the later months of pregnancy.

By the Regulations of the Central Midwives Board which came into force at the beginning of 1922, midwives are required to examine the urine in every case when they are engaged to attend a woman in confinement. This amendment of Rule E. 1 (a) was impressed on all practising midwives in a circular letter, dated March, 1922, and also by Nurse Health Visitors in the course of their routine inspections and by the Medical Officers of the Child Welfare Centres in periodic addresses to midwives.

74 per cent. of the midwives practising in the Middle Ward are untrained according to the examinational standard of the Central Midwives Board, and although much time was devoted to teaching these women how to take and record the pulse rate and temperatures of their patients, it is generally admitted that they have failed in the execution of this part of their duties. As the examination for albuminuria appeared to be no less difficult and the prospects of success in teaching no greater, it was decided to issue outfits to all untrained midwives and to request them to submit specimens for examination to the County Laboratory. In such cases the result is intimated to the midwife, and at the same time the outfit is returned and the cost of postage repaid.

There are advantages, however, in carrying out urinary examinations locally and midwives have been encouraged to send specimens to the Child Welfare Centres, and, if possible, also to send the patient. With the approval of the Scottish Board of Health, the Local Authority have agreed to pay a compensatory fee of 10s. to a midwife if it should be found necessary to recommend the admission of her patient to hospital, and this provision certainly has allayed the natural fear of losing a case.

200 specimens were sent by the midwives to the County Laboratory and of these 53 were positive; 29 specimens were sent by members of the Public Health Staff and of these 8 were positive; at the Child Welfare Centres 203 specimens were examined and 38 of these were positive.

The presence of albumen in the urine does not, of course, mean that the condition is directly due to pregnancy, but it is an abnormality—however trivial the cause may be—and requires careful investigation by a medical practitioner. When a positive result was obtained the case was followed until the patient was under medical care, either in her own home, at the Child Welfare Centre, or in an institution, and in no instance did eclampsia result. There appears to be little doubt that the early recognition and treatment of albuminuria will also influence the incidence of stillbirths, and of many minor and vague illnesses of pregnancy.

During 1923 the work has been regarded as experimental and educative and with the experience gained steps have been taken to ensure an increase in the number of specimens examined, and in following up those patients who were found to have albuminuria.

Prejudice on the part of patients against the examination of urine because it is a new proceeding, has been encountered, but as the numbers show it is being overcome, and the impression gathered is that a brief explanation will readily dispose of it. The inertia of the attendant is not likely to be overcome so easily.

The ante-natal cases admitted to institutions during the year was as follows:—County Hospital, Bellshill, 427; Calderbank Convalescent Home, 42; Royal Maternity Hospital, Glasgow, 20; Coatbridge and Airdrie Maternity Home, 18.

Child Welfare Centres.

Two additional Centres were opened during the course of the year—namely, one at Glenboig on 6th February, and one at Cadzow on

9th May. Throughout the year a considerable amount of the time of the medical and nursing staffs continued to be taken up in dealing with applications from families in necessitous circumstances, although such work showed a marked diminution compared with the previous year.

Table M VI shows the attendances, consultations, and demonstrations at the Child Welfare Centres during 1923.

TABLE M VI.

Centre.	Attendances.			Consultations.			Demonstrations.
	Mothers.	Children.	Infants.	Mothers.	Children.	Infants.	
Baillieston, -	2,306	615	1,635	35	18	54	19
Bellshill, -	4,067	1,110	3,173	84	73	207	24
Blantyre, -	2,551	900	1,768	211	134	186	25
Cadzow, -	490	179	296	12	33	45	—
Cambuslang, -	3,214	1,152	2,442	197	167	279	33
Glenboig, -	883	453	680	8	14	51	18
Larkhall, -	2,764	973	1,805	227	143	262	20
Newmains, -	1,549	477	626	27	51	102	21
Shotts, -	1,192	399	521	19	32	70	23
Uddingston, -	1,472	401	793	47	46	94	17
	20,488	6,659	13,739	867	711	1,350	200

The cases for which medical advice was given numbered 2,928; 867 of these were mothers, and 2,061 were children. The conditions were as follows:—

Mothers.—Ante-natal, 268; post-natal, 339; gynæcological, 189; others, 71.

Children.—Nutritional and gastro-intestinal, 1,135; skin diseases, 302; respiratory diseases, 155; ear, throat, and nose, 128; eyes, 94; hernia, 75; congenital malformation, 28; diseases of the nervous system, 24; phimosis, 24; injuries, 14; specific disease, 3; others, 79.

The attendances in the above table include cases which received assistance under the Maternity and Child Welfare Scheme. The numbers dealt with and the expenditure incurred are shown below, as well as the corresponding annual figures for each Centre.

NUMBER OF CASES.

Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
781	651	565	470	432	405	342	463	357	341	382	393	5,582
			No. of Cases.				Amount.				No. of Cases.	Amount.
Baillieston,	...	628		£333	5	6	Airdrie,	...	537		£278	2 0
Bellshill,	...	944		518	12	7	Bothwell,	...	47		28	2 6
Blantyre,	...	1,444		800	3	6	Cadzow,	...	345		176	12 0
Cambuslang,	...	367		190	2	10	Cleland,	...	11		6	0 0
Larkhall,	...	323		164	1	9	Glenboig,	...	44		20	1 0
Newmains,	...	150		81	14	0	Greengairs,	...	177		100	17 9
Shotts,	...	47		25	6	3	Strathaven and					
Uddingston,	...	323		189	14	0	Chapelton,		195		121	1 6
			4,226	£2,303 0 5						1,356	£730 16 9	

CASES.

Total, ... 5,582.

EXPENDITURE.

£3,033 17 2.

Treatment of Squint Cases.—In February, 1923, the Scottish Board of Health drew attention to the high percentage of squint cases in school children in Lanarkshire, and asked whether the Local Authority was prepared to deal with cases of squint occurring in children of pre-school age. Inquiries were made through the Nurse Health Visitors staff, and 85 cases of squint were discovered in children whose ages ranged from about 13 months to 5 years. With a view to examination and treatment by eye specialists, arrangements were made with four ophthalmic surgeons, who were engaged part time by the Education Authority. It was found that the examinations could be carried out at three of the existing Child Welfare Centres, viz., at Bellshill, Cambuslang, and Larkhall, and at the County Sanatorium, Shotts, while at Blantyre the use of a dark room in the Cottage Hospital was obtained. Arrangements were also made with the Burgh of Hamilton, where an eye clinic had already been established, and a similar combination was suggested with the Burgh of Coatbridge. It was arranged with certain opticians in Rutherglen, Coatbridge, Hamilton, and Strathaven to supply spectacles at the rate then being paid by the Education Authority. Late in the year the above proposals received the approval of the Scottish Board of Health, and a commencement was made with the examination and treatment of cases. 21 cases were treated, for whom spectacles were prescribed in 14 cases, and 7 re-examinations were carried out. Except in necessitous cases, the cost of the spectacles was met by parents or guardians.

Dental Treatment—Mothers and Children.—Mothers and children attending the various Child Welfare Centres have been found in a small number of cases to require dental treatment, and early in the year arrangements were made with the local dentists who had undertaken dental treatment in connection with tuberculosis work to extend their services to cases coming under the Maternity and Child Welfare Scheme. On the Scottish Board of Health being approached, approval was obtained for the dental treatment of nursing and expectant mothers only, and a certain amount of such treatment was carried out during the year. Early in the current year the approval was extended to the treatment of children of pre-school age, it being understood that in both cases the service would be limited to cases who were themselves unable to meet the cost of treatment.

The necessity of ante-natal care being extended to include dental treatment hardly requires to be emphasised. The nutrition and comfort of the expectant mother may be interfered with to a very

considerable extent by the presence of carious teeth, and oral sepsis must also be regarded as a very possible source of danger during pregnancy and at the time of confinement. With reference to children, it has been pointed out by the school medical officers that a great deal of oral sepsis is present in children by the time they reach school age, and it is important that care of the teeth should be commenced at the earliest stage possible.

The number of cases of nursing and expectant mothers who require dental treatment and who are in necessitous circumstances has so far been small, the cases recommended for treatment during the year amounting to 16.

As already mentioned, the Central Department's approval for the extension of treatment to children was not obtained until the commencement of the current year.

Boarded-out Children.—During the course of the year, one child, aged three months, was boarded-out with foster-parents resident in the North of Scotland. The child's mother was unmarried, and her relatives agreed to contribute five shillings per week towards the cost of maintenance. At the end of the year the total number of children boarded-out by the Local Authority was 12; 10 boarded-out with crofters in Aberdeenshire and Banffshire; while 2 are in Smyllum Orphanage, Lanark. The great majority were illegitimate, with little prospect of being satisfactorily looked after if left to the care of the relatives. The average cost amounts to 9s. 6d. per week, together with an allowance not exceeding £5 per case per annum for clothing and medical attendance, if necessary. During the course of the year, one boarded-out child attained the age of 5 years, at which age the responsibility of the Local Authority ceased. The child was accordingly transferred to the custody of the Parish Council within whose area the mother was domiciled.

County Maternity Hospital, Bellshill.

REPORT BY THE PHYSICIAN-SUPERINTENDENT, HENRY JAMES THOMSON, M.B., Ch.B.

The work done in this Institution is summarised in Table M III. The number of patients remaining in hospital on 31st December, 1922, including 10 babies born in hospital, was 45, and the number of patients admitted, including 288 babies born alive in the Institution, numbered 991. There were left in the hospital at the end of the year, 36 patients, including 5 babies born in hospital. Of the 340 confinements, 288 infants were born alive (5 were twin births) and 57 still-births. Twelve of the live births and 4 of the still-births relate to premature children.

TABLE M III.

	In Resi- dence on	Admit- ted.	Dis- charged.	CONDITION ON DISCHARGE.				In Resi- dence on
	1st Jan.			Well.	Stationary.	Worse.	Died.	31st Dec.
Mothers—								
Ante-Natal—								
For Confinement,	23	337	345	337	—	—	8	15
Too early for Con- finement, -	—	24	24	—	24	—	—	—
For Treatment(only),	5	66	69	61	2	—	6	2
For Curettage (Abortions),	4	84	85	83	2	—	—	3
Post-Natal, -	2	17	18	18	—	—	—	1
Gynæcological, -	—	147	139	119	19	—	1	8
Other Conditions,	—	15	15	9	5	—	1	—
Children, - -	1	13	12	12	—	—	—	2
	35	703	707	639	52	—	16	31

Infants born in Hospital.—There were born in the hospital during the year 345 children :—

In Residence on 1st Jan.	INFANTS BORN.		DISCHARGED.		In Residence on 31st Dec
	Alive.	Still-born.	Well.	Died.	
10	288	57	273	20	5

Age Groups.—The following Table M IV shows the ages of the mothers admitted, as well as the nature of the conditions necessitating admission :—

TABLE M IV.

Nature of Condition—	Years.						Total.
	- 20	- 25	- 30	- 35	- 40	Over. 40	
Ante-Natal, -	65	117	95	63	60	27	427
Post-Natal, -	1	6	6	1	3	—	17
Gynæcological, -	5	35	37	37	17	16	147
Other Conditions,	4	2	4	—	1	4	15
	75	160	142	101	81	47	606

The 13 children admitted to hospital, apart from the babies born in the Institution, were all under 1 year of age.

Ante-Natal Cases.—The total number of ante-natal cases admitted was 511. Of this number, 337 were for confinement, 24 were too early for confinement, 66 were for treatment only, and 84 were abortions. The conditions affecting the 66 cases admitted for treatment only were as follows :—

Albuminuria, - - - -	8	Mental instability, - - - -	1
Ante-partum hæmorrhage, - -	4	Prolapsus uteri during pregnancy, -	1
Albumen and pus, - - - -	2	Pyelitis, - - - -	1
Albuminuria (sent in as albuminuria		Oedema of legs, - - - -	1
—no albumen present), - -	5	Rectal hæmorrhage, - - - -	1
Contracted pelvis, - - - -	1	Phlebitis, - - - -	1
Debility, - - - -	1	Toxæmia, - - - -	3
Eclampsia (undelivered), - -	3	For observation, - - - -	3
Epigastric pain, - - - -	2	* Others, - - - -	16
Failed forceps (undelivered), -	1		—
Hyperemesis gravidarum, - -	11	Total, - - - -	66

* In this figure are included 9 cases transferred to other Institutions, and 2 which left hospital shortly after admission, against the advice of the Physician-superintendent.

Still-Births.—The causes of the 57 still-births were as follows :—

Anencephalus, - - - -	4	Placenta prævia (central), - - -	4
Craniotomy, - - - -	2	„ „ (partial), - - -	1
Delayed labour, - - - -	6	„ „ (lateral), - - -	2
Breech presentation, - - -	6	„ „ (marginal), - - -	3
Eclampsia, - - - -	5	Prematurity, - - - -	4
Hæmorrhage (accidental) - -	6	Prolapse cord, - - - -	1
Instrumental delivery - - -	4	Transverse presentation, - - -	2
Macerated foetus, - - - -	5	Footling presentation, - - -	2
		Total, - - - -	57

The following tabular statement shows the sex of the babies born in hospital alive or still-born, distinguishing between legitimate and illegitimate births:—

Sex.	Babies Born Alive.		Babies Still-born.	
	Legit.	Illegit.	Legit.	Illegit.
Males, - -	107	25	21	3
Females, - -	117	39	31	2
	288		57	

The causes of deaths of infants born alive in hospital, but who died within 10 days of birth, were:—

Ascitis - - - - -	1	Icterus neonatorum, - - -	1
Hæmatemesis neonatorum, - -	1	Intestinal hæmorrhage, - -	1
Hæmorrhage cerebral, - - -	1	Malnutrition (of child), - -	1
Injury due to forceps, - - -	2	Prematurity, - - - - -	12
		Total, - - - - -	20

12 of these infants were prematurely born, and the deaths of these constituted 60 per cent. of the total deaths of infants born in hospital. The deaths of the other eight were due to non-preventable causes.

The nature of the presentation and the delivery at confinement are given in the following Table M V:—

TABLE M V.

NATURE OF PRESENTATION.

Delivery.	Vertex.	Breech.	Footling.	Placenta Prævia.	Cæsarean Section.	Cranio- tomy.	Face.	Total.
Normal, -	277	12	—	—	—	—	1	290
Manual, -	—	8	3	8	—	—	—	19
Instrumental,	17	—	—	—	—	—	—	17
Induction, -	12	—	—	—	—	—	—	12
Operative, -	—	—	—	—	5	2	—	7
Total, -	306	20	3	8	5	2	1	345

It is worthy of note that the total “forceps” cases numbered 17—*i.e.*, equal to 4·9 per cent of the total cases, as compared with fully 5 per cent. for the previous year.

TABLE M VI.

UNAVOIDABLE HÆMORRHAGE (PLACENTA PRÆVIA).

During the year there were treated in this Institution under the above heading the following cases: — Central placenta prævia, 5; partial placenta prævia, 1; lateral placenta prævia, 2; and marginal placenta prævia, 5.

	Para.	Duration of Pregnancy.	Duration of Hæmorrhage (before admission).	Child Alive or Still-born.	Mother Lived or Died	Remarks.
1	4th	9th month	1 day	S.	Died	Central Placenta Prævia.
2	9th	9th „	?	S.	Lived	„ „
3	6th	9th „	?	A.	Lived	„ „
4	9th	8th „	14 days	S.	Lived	„ „
5	9th	7th „	48 hours	S.	Lived	„ „ Transferred to Motherwell Hospital, suffering from puerperal fever.
6	9th	9th „	14 days	S.	Lived	Partial Placenta Prævia. Sent to Motherwell Hospital, suffering from puerperal fever.
7	1st	9th „	14 days	S.	Died	Lateral Placenta Prævia.
8	9th	9th „	3 hours	S.	Lived	„ „
9	12th	8th „	Few hours	S.	Lived	Marginal Placenta Prævia.
10	1st	7th „	1 day	A.	Lived	„ „
11	11th	8th „	Few hours	A.	Lived	„ „
12	10th	8th „	7 days	S.	Lived	„ „ Sent to Motherwell Hospital, suffering from puerperal fever.
13	3rd	8th „	14 days	S.	Lived	Marginal Placenta Prævia.

"S"—Still-born.

A"—Born alive.

It will be observed from the above table that out of 13 cases of placenta prævia only 2 had a fatal termination, and 3 were sent to the County Hospital, Motherwell, suffering from puerperal fever.

Accidental Hæmorrhage.—The undernoted table shows that there were 7 cases of accidental hæmorrhage, and in each case the child was still-born. One woman died before reaching hospital. All the others made a good recovery.

TABLE M VII.

	Para.	Duration of Pregnancy.	Duration of Hæmorrhage.	Child Alive or Still-born.	Mother Living or Dead.	Remarks.
1	14th	7th month	5 hours	S.	L.	—
2	10th	7th „	1 day	S.	L.	—
3	1st	8th „	4 hours	S.	L.	—
4	6th	9th „	1 day	S.	L.	—
5	6th	9th „	Few hours	S.	L.	—
6	6th	9th „	6 hours	—	D.	Died in Ambulance before reaching hospital—undelivered.
7	2nd	9th „	3 hours	S.	L.	Cord prolapsed on admission.

Induction of Labour. — There were 14 cases where labour was induced, for the following causes:—

Albuminuria, - - - -	3	Insanity, - - - -	2
Ante-partum hæmorrhage, -	1	Phthisis, - - - -	1
Eclampsia and insanity, -	1	Pneumonia, - - - -	1
Hyperemesis, - - - -	1	Pyelitis, - - - -	2
Hæmaturia, - - - -	1	Toxæmia of pregnancy, - -	1
			<hr/> 14 <hr/>

The above list includes two cases not accounted for in Table M V, as labour was induced in one case for toxæmia of pregnancy, and in the other for albuminuria, during the first three months of pregnancy.

Albuminuria.—The cases admitted as albuminuria numbered 17, and the cases admitted as albuminuria but found to have no albumen numbered 5, making an actual total of 12, of which 2 were admitted for confinement and 10 for treatment only.

Cases admitted for other conditions, found after admission to have albumen in urine, numbered 77.

Cases requiring operative interference.—Of the 7 cases of contracted pelvis, Cæsarean section was performed in 5, and Table M VIII shows that all the mothers and children were discharged from hospital well, with the exception of one child, who was weakly at the time of birth, and died one hour thereafter. The other two were cases of craniotomy. On account of the risk of puerperal infection, abdominal section is not attempted where the membranes are ruptured, or if the case has been interfered with prior to the patient's admission to hospital. In such cases craniotomy is always resorted to. The following Table M VIII is a record of all cases of Cæsarean section performed in the hospital during the year, and shows the condition of mother and child on discharge:—

TABLE M VIII.
CÆSAREAN SECTION.

No.	Number of previous Dead Children.	Condition of Child—Lived or Died.	Remarks.
1	2	L.	Mother and child discharged well.
2	—	L.	Mother discharged well. No definite history could be got as mother was mentally deficient. Child was feeble when born and only lived one hour.
3	1	L.	Cæsarean section performed for the second time—mother and child discharged well.
4	—	L.	Mother and child discharged well.
5	—	L.	Do. - do.

Post-Natal.—The 17 post-natal cases admitted during the year were suffering from—

Eclampsia,	3	Nephritis,	1
General debility,	4	Peritonitis,	1
Hemiplegia,	1	Puerperium (Debility during),	3
Mastitis,	1	Phlegmasia alba dolens, . .	1
Neurosis,	1	Ruptured perineum,	1

15 of these cases were discharged well and 1 died, the remaining case being still in hospital at the end of the year.

The following Table M IX shows the numbers of infants born in the Institution during each of the years 1919-1923:—

TABLE M IX.

Year			In Residence on 1st January.	Infants born.		Discharged.		In Residence on 31st December
				Alive.	Still-born.	Well.	Died.	
1919,	-	-	2	30	2	22	5	5
„ 1920,	-	-	5	110	6	105	6	4
„ 1921,	-	-	4	203	22	183	15	9
„ 1922,	-	-	9	213	50	201	11	10
„ 1923,	-	-	10	288	57	273	20	5

The large increase in still-births is accounted for by the fact that, as the Institution is becoming more widely known, a greater proportion of abnormal cases is being dealt with.

Gynæcology. — 147 cases were dealt with under this heading. Among the operations performed curettage again occupies the premier position. Several operations of colporrhaphy and perineorrhaphy were performed for the relief of cystocele, rectocele, prolapsus uteri, and relaxed vaginal outlet, which may be due either to the dilating influence of repeated labours or to the actual tearing of the perineum.

Of the 147 gynæcological cases admitted, 4 had hysterectomy performed, 3 ovariectomy, 25 colporrhaphy and perineorrhaphy, 2 cases required repair of cervix, 69 curettage, 4 chloroform examinations, and 17 other operations. 23 cases did not require operative interference, viz.:—2 amenorrhœa, 1 dysmenorrhœa, 1 endometritis, 5 menorrhagia, 2 ovarian cyst, 4 prolapse of uterus, and 8 other conditions. These cases were admitted for observation, and treatment, if necessary. One patient who had hysterectomy performed died. All the other gynæcological cases were discharged well, with the exception of 19, whose condition remained stationary (see Table M III).

Miscellaneous Cases.—15 cases were admitted suffering from conditions which cannot well be classified as maternity cases. These were: — Chronic pelvic inflammation, 1; pyelitis, 1; debility, 3; adherent placenta, 3; disease of ductless glands, 1; hæmatura, 1; enuresis, 1; ovarian cyst, 1; hæmorrhagic œdema, 1; adenocarcinoma, 1; bacilluria, 1.

Children. — The conditions or circumstances necessitating the admission of the 13 children to hospital were:—General debility, 2; admitted with mother, 11.

History of Cases of Maternal Deaths.

Mrs. H. — A case of ante-partum hæmorrhage at full term. Hæmorrhage commenced at 5.30 a.m. Doctor sent for at 8 o'clock; did not arrive until 9.30 a.m., when the patient was ordered to be removed to hospital. Died in ambulance at 10.40 a.m., before reaching the hospital.

Cause of death: *Chronic nephritis and accidental hæmorrhage*, as certified by practitioner in attendance.

Mrs. D. — Patient admitted in exhausted condition as "failed forceps." Pulse rapid and of poor quality. Died undelivered.

Cause of death: *Heart failure, exhaustion, shock*.

A. Q.—The patient died shortly after admission to hospital.

Cause of death: *Placenta prævia (central), exhaustion, hæmorrhage*.

Mrs. B.—Patient admitted for observation, suffering from lateral placenta prævia. Labour was induced with pituitrin and quinine, but version had to be done and delivery was completed within an hour and a-half. The child was still-born, and the placenta was adherent to the lower uterine segment, and had to be removed under chloroform. Patient sank very rapidly.

Cause of death: *Placenta prævia, hæmorrhage, shock*.

Mrs. H.—Patient admitted, with history of ruptured membranes, forty-eight hours before admission, and forceps had been applied by a general practitioner, but delivery was not effected. On admission the patient was given morphia, repeated at intervals of three hours, three doses being given in all. Patient was delivered by forceps. Twenty-four hours after delivery the patient suddenly collapsed, vomited brownish fluid, and the abdomen became very distended; pulse 100, and slight elevation of temperature. Patient died $2\frac{1}{2}$ days after delivery.

Cause of death: *Acute sepsis*.

Mrs. W. — Patient admitted in labour, "failed forceps," before admission, and vaginal wall was badly lacerated. Delivered by forceps one and a-half hours after admission. On taking a catheter specimen of urine, blood and albumen were found present. Patient had abdominal pain and all the symptoms of acute sepsis.

Cause of death: *Acute sepsis*.

Mrs. J.—Patient admitted, suffering from eclampsia, in the eighth month of pregnancy. Routine treatment carried out. Patient died fourteen hours after admission.

Cause of death: *Eclampsia*.

V. G. — Patient admitted suffering from eclampsia; unconscious on admission. Usual treatment carried out. Patient had fifteen fits in all. Died undelivered nine hours after admission, with a temperature of 109° F.

Cause of death: *Eclampsia*.

Mrs. S.—Patient admitted, suffering from eclampsia, at full term. Usual treatment carried out. Patient had twenty fits in all. As the head was on the perineum, the patient was delivered by forceps. Died twenty-four hours after admission, never having regained consciousness.

Cause of death: *Eclampsia*.

Mrs. D.—Patient admitted, suffering from eclampsia primipara, in the eighth month of pregnancy; unconscious on admission. Usual treatment carried out. Had seven fits before admission and four after admission. Uterine contents expelled normally. Patient never regained consciousness, and died eighteen hours after admission.

Cause of death: *Eclampsia*.

Mrs. L.—Patient admitted in a semi-conscious condition, in the eighth month of pregnancy, with elevated temperature and rapid pulse. History of being in a semi-conscious condition for six days prior to admission. Patient seemed to improve somewhat during the first twenty-four hours, but gradually became more drowsy. Temperature rose rapidly to 106·6° F., and pulse 164.

Cause of death: *Acute toxæmia*.

Mrs. W. — Patient admitted in the eighth month of pregnancy, complaining of abdominal pain, diarrhœa, and sickness, with severe frontal headache, and looking very ill. Had a slight fit at 10 a.m., and three following that, at intervals of one hour. Patient died twelve hours after admission.

Cause of death: *Acute toxæmia of pregnancy*.

Mrs. J.—Patient admitted, in a drowsy condition, in the eighth month of pregnancy. Temperature, 104; pulse, 140. Patient gradually became weaker, and never regained consciousness. Died twelve hours after admission.

Cause of death: *Acute toxæmia of pregnancy.*

Mrs. B.—Patient admitted in labour; impacted breech. Was delivered under chloroform, and the following days developed the symptoms of acute toxæmia. Died $2\frac{1}{2}$ days after admission.

Cause of death: *Delayed labour, impacted breech, acute toxæmia of pregnancy.*

The fatality rate for admission was 2·1 per cent.

The following tabular statement shows the abnormal conditions occurring in the Institution during the year:—

TABLE M X.

ABNORMALITIES IN LABOUR.

Contracted pelvis, requiring operative interference,	-	7
Cæsarean section,	- - - - -	5
Forceps,	- - - - -	17
Craniotomy,	- - - - -	2
Abnormal presentations—		
Face,	- - - - -	1
Breech,	- - - - -	20
Footling,	- - - - -	3
Transverse,	- - - - -	2
Prolapsed cord	- - - - -	1
Hæmorrhage—		
Ante-partum (accidental)	- - - - -	7
Placenta prævia,	- - - - -	13
Induction of labour for—		
Albuminuria,	- - - - -	3
Ante-partum hæmorrhage,	- - - - -	1
Eclampsia and insanity,	- - - - -	

Hyperemesis, - - - - -	1
Hæmaturia, - - - - -	1
Insanity, - - - - -	2
Phthisis, - - - - -	1
Pneumonia, - - - - -	1
Pyelitis, - - - - -	2
Toxæmia of pregnancy, - - - - -	1

Maternal deaths due to—

Eclampsia, - - - - -	4
Acute toxæmia, - - - - -	4
Acute sepsis, - - - - -	2
Placenta prævia, - - - - -	2
Heart failure, - - - - -	1
Accidental hæmorrhage and chronic nephritis, - - - - -	1

Still-births—

Anencephalus, - - - - -	4
Craniotomy, - - - - -	2
Delayed labour, - - - - -	6
Breech presentations, - - - - -	6
Eclampsia, - - - - -	5
Hæmorrhage (accidental), - - - - -	6
Instrumental delivery, - - - - -	4
Macerated fœtus, - - - - -	5
Placenta prævia (central), - - - - -	4
„ „ (partial), - - - - -	1
„ „ (lateral), - - - - -	2
„ „ (marginal), - - - - -	3
Prematurity, - - - - -	4
Prolapsed cord, - - - - -	1
Transverse presentation, - - - - -	2
Footling, - - - - -	2

Causes of deaths of infants within 10 days of birth—

Ascitis, - - - - -	1
Hæmatemesis neonatorum, - - - - -	1
Hæmorrhage cerebral, - - - - -	1

Injury due to forceps,	-	-	-	-	-	-	2
Icterus neonatorum, -	-	-	-	-	-	-	1
Intestinal hæmorrhage,	-	-	-	-	-	-	1
Malnutrition of child,	-	-	-	-	-	-	1
Prematurity, - - - - -	-	-	-	-	-	-	12

Post-natal cases—

Eclampsia, - - - - -	-	-	-	-	-	-	3
General debility, - - - - -	-	-	-	-	-	-	4
Hemiplegia, - - - - -	-	-	-	-	-	-	1
Mastitis, - - - - -	-	-	-	-	-	-	1
Neurosis, - - - - -	-	-	-	-	-	-	1
Nephritis, - - - - -	-	-	-	-	-	-	1
Peritonitis, - - - - -	-	-	-	-	-	-	1
Puerperium (Debility during), - - - - -	-	-	-	-	-	-	3
Phegmasia alba dolens, - - - - -	-	-	-	-	-	-	1
Ruptured perineum, - - - - -	-	-	-	-	-	-	1

The following tabular statement shows the areas from which the patients were admitted, the admissions from the Middle Ward being classified according to parish:—

MIDDLE WARD, 605							
East Kilbride, 6				Cambusnethan, 9			
Blantyre, 96				Dalserf, 76			
Bothwell, 254				Old and New Monkland, 44			
Cambuslang Parish, ... 79				Shotts, 41			
LOWER WARD, 25				HAMILTON BURGH, ... 20			
UPPER WARD, 38				MOTHERWELL BURGH, ... 15			
Total,				703			

Out-Patient Treatment.

During the year a number of cases suffering from abnormal conditions affecting pregnancy and from post-natal conditions received advice at the clinic. Such cases were usually sent to the hospital by medical practitioners.

The following table, M XI, shows the cases dealt with from the various parishes, classified according to the nature of the condition diagnosed:—

TABLE M XI.

	Endometritis	Dysmenorrhoea	Tears of Cervix	Tears of Perineum	Prolapsus Uteri	Ante-natal	Abortions	Fibrosis of Uterus	Fibroid of Uterus	Glandular Insufficiency	Absence of Uterus & Vagina	Cesarean Sect.	Retroversion	Hernia of Uterus	Hernia (Inguinal)	Hyper Involution	Sub-Involution	Dyspareunia	Salpingitis	Bladder Fistula	Cystic Ovary	Carcinoma of Uterus	Pyelitis	Others	Total	
Avondale, -	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
East Kilbride, -	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Blantyre, -	5	2	1	-	1	4	1	-	1	1	-	-	1	-	1	-	-	-	-	-	1	-	-	3	22	
Bothwell, -	25	12	3	5	12	12	7	1	1	1	-	1	2	-	1	1	1	3	1	-	1	2	3	13	108	
Cambuslang, -	2	-	-	-	1	8	-	1	-	-	1	-	1	1	1	-	-	-	-	-	2	-	-	2	20	
Cambusnethan, -	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	7	
Dalserf, -	5	1	5	1	4	1	-	-	-	1	-	-	1	-	-	-	-	-	-	1	1	1	-	-	2	24
Hamilton, -	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Old and New Monkland, -	1	-	-	-	-	2	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	
Shotts, -	2	1	-	-	5	3	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	1	15	
Upper Ward, -	-	-	-	-	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
Lower Ward, -	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	3	
	46	16	10	7	23	34	10	3	2	4	1	1	5	1	3	1	1	3	2	2	7	2	3	24	211	

The clinic is held three times a week for women suffering from abnormal conditions of pregnancy, but more especially for those conditions which may affect pregnancy, or which may be the result of difficult labour, as, for example, tears of the cervix, fistulae, cystocele, rectocele, ruptured perineum, and menorrhagia.

STAFF.—The staff consists of the following:—

Physician-Superintendent.	1 Nurse typist,
Consulting Surgeon.	1 Probationer.
Anaesthetist.	8 Maids.
Matron.	1 Chauffeur.
3 Sisters.	3 Stoker-gardeners,
3 Staff nurses.	

In addition to the permanent staff, there are eight nurses who are taking their course of midwifery training.

During the year 1923, 19 nurses were trained and 18 passed the examination of the Central Midwives Board. The demand for midwifery training greatly exceeds the available accommodation.

The new nurses' home, referred to in 1922 Report, was completed early in the year.

County Convalescent Home, Calderbank House.

Physician-Superintendent—G. MACLEOD MILLAR, M.B., Ch.B.

Matron—Miss G. M'NEILL.

BUILDINGS AND GROUNDS. — During the year the West Lodge was adapted for use as a nurses' home, and accommodation thereby provided for four of the nursing staff.

ACCOMMODATION. — The provision of beds and cots is, to some extent, fluid, and varies according to the class of patient requiring admission. Thus there may be either 25 beds for mothers and 12 cots for children, or 19 beds for mothers and 19 cots for children; in addition, 18 treasure cots are provided for infants admitted with their mothers.

STAFF.—The nursing staff has been increased by two probationers. The domestic and outdoor staff is unchanged.

PATIENTS TREATED. — There were 5 mothers and 15 children in residence on 1st January, 1923. During the year 241 mothers and 208 children were admitted, a total of 449; 238 mothers and 191 children were discharged, and 6 children died. On 31st December, 1923, there were in residence 8 mothers and 26 children.

PLACE OF RESIDENCE.—Of the 449 cases admitted, 397 resided in the Middle Ward area, 37 in the Lower Ward area, 14 in the Upper Ward area, and 1 in the Burgh of Hamilton. The place of residence of the Middle Ward cases, arranged according to parish, were as follows:—Avondale, 1; East Kilbride, 4; Stonehouse, 1; Blantyre, 103; Bothwell, 149; Cambuslang, 55; Cambusnethan, 7; Dalserf, 37; Hamilton, 7; New Monkland, 3; Old Monkland, 24; and Shotts, 6. Total, 397.

The admission of cases was obtained, in most instances, through the Child Welfare Centres, viz., Blantyre, 94; Bellshill, 89; Uddingston, 42; Cambuslang, 41; Larkhall, 30; Baillieston, 21; Newmains, 6; Cadzow, 5; Airdrie, 2; Shotts, 2; and Glenboig, 1. In addition, 56 cases were admitted from the County Maternity Hospital, Bellshill, for the treatment chiefly of ante-natal and post-natal debility. 14 cases were transferred from the Sick Children's Hospital, Blantyre, for convalescent treatment, and 3 from the County Hospital, Motherwell. In addition, 34 were admitted direct from the Lower Ward District and 9 from the Upper Ward.

REASON FOR ADMISSION.—The reasons for admission in the case of mothers were as follows :—Post-natal debility, 132 ; ante-natal debility, 41 ; anæmia, 34 ; post-operative debility, 16 ; nephritis, 7 ; neurasthenia, 3 ; cellulitis of neck (ante-natal), 1 ; mitral disease, 1 ; mucous colitis, 1 ; phlebitis, 1 ; pyelitis, 1 ; scabies, 1 ; and others, 2.

The children were admitted for the following reasons :—Breast-fed infants with mother, 126 ; debility, 34 ; rickets, 23 ; enteritis, 9 ; marasmus, 5 ; scabies, 3 ; anæmia, 2 ; impetigo, 2 ; infantile paralysis, 1 ; ophthalmia, 1 ; prolapsus recti, 1 ; and scurvy, 1.

DURATION OF RESIDENCE.—The average duration of residence was 19 days for mothers and 32 days for children.

RESULTS OF TREATMENT.—The majority of cases were well or improved on discharge. 6 children died, the causes of death being as follows :—marasmus, 2 ; congenital debility, 2 ; tabes mesenterica, 1 ; and pulmonary tuberculosis, 1.

County Hospital, Blantyre.

Physician-Superintendent—H. J. THOMSON, M.B., Ch.B.

Matron—Miss G. R. STEVENSON.

ACCOMMODATION.—The accommodation for patients remains the same as described in the report for the year 1922, viz., 13 cots and 5 beds.

STAFF.—The nursing staff consists of a matron, a day staff-nurse, a night staff-nurse, and three probationers. There are three maids. A gardener is employed part time.

CASES TREATED.—18 cases were under treatment at 31st December, 1922, and during the year 129 cases were admitted and 135 were discharged, leaving 12 cases under treatment on 31st December, 1923.

PLACE OF RESIDENCE.—Of the 129 cases admitted, 123 resided in the Middle Ward, four in the Upper Ward, and two in the Lower Ward District. The parishes of residence of patients admitted from the Middle Ward were:—Avondale, 1; Blantyre, 22; Bothwell, 9; Cambuslang, 41; Cambusnethan, 1; Dalserf, 31; East Kilbride, 1; Hamilton, 5; New Monkland, 2; Old Monkland, 4; Shotts, 5; Stonehouse, 1.

AGE OF PATIENTS.—The ages of the cases under treatment were as follows:—

CHILDREN:—

Months.		Years.		Total.
-6	6-12	1-2	2-5	
25	22	28	6	81

OTHERS:—

Years.				Over.	Total.
-20	-25	-30	-35	-40	40
8	14	8	9	5	4
					48

NATURE OF ADMISSIONS.—The conditions which necessitated admission were:—

CHILDREN:—

Bronchitis,	-	-	.	-	3	Marasmus,	-	-	-	-	18
Debility,	-	-	-	-	20	Mother in Hospital,	-	-	-	-	10
Eczema,	-	-	-	-	4	Pneumonia,	-	-	-	-	4
Gastro-Enteritis,	-	-	-	-	4	Rickets,	-	-	-	-	7
Gastritis,	-	-	-	-	7	Ringworm,	-	-	-	-	1
Hydrocephalus,						Intestinal Thread-worms,	-	-	-	-	1

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OTHERS:—

Ante-natal for observation, -	9	Hyperemesis Gravidarum, -	2
Anaemia, - - - -	1	Hernia of Uterus (Pregnancy),	1
Albuminuria (post-natal), -	4	Incontinence (Congenital), -	1
Curettage, - - - -	1	Mastitis, - - - -	5
Cardiac Disease, - - - -	1	Pelvic Cellulitis, - - - -	2
Debility, - - - -	18	Phlegmasia alba dolens, -	1
Hemiplegia (post natal), -	1	Awaiting Operation, - -	1

—
48

RESULT OF TREATMENT. — 98 cases were discharged well, 14 improved, in five the condition remained stationary, four were allowed home at parents' request, and 14 children died.

The causes of death recorded were as follows:—*Tabes mesenterica*, 2; tuberculous meningitis, 3; congenital tuberculosis, 1; generalised tuberculosis, 1; influenzal gastro-enteritis, 4; pneumonia, 1; marasmus, 2.

In the month of January a severe type of gastric influenza attacked the infants, causing frequent and very offensive motions, which were exceedingly irritating to the buttocks and thighs, the irritation even spreading to the abdomen. All the infants in one ward were attacked. Three of the children died after three days' and one after eight days' illness. The remainder gradually recovered.

COUNTY OF LANARK.
DISTRICT OF THE MIDDLE WARD.

MIDWIVES (SCOTLAND) ACT, 1915

Seventh Annual Report by the Medical Officer
of Health, 1923.

STAFF.

Administrative Officer.

JOHN T. WILSON, M.D., D.P.H.

Executive Officers and Inspectors of Midwives.

J. THOMSON DICK, M.B., Ch.B., D.P.H.

J. M'CALLUM LANG, M.D., D.P.H.

HENRY J. THOMSON, M.B., Ch.B.

JOHN A. C. GUY, M.B., Ch.B., D.P.H.

G. MACLEOD MILLAR, M.B., Ch.B.

Nurse Health Visitors and Assistant Inspectors of Midwives.

(All hold the C.M.B. Certificate.)

HELENA STRATH.

JEAN F. ROSS.

MARGARET STEWART.

MARGARET ARNOT.

CATHERINE ROBERTSON.

JEAN BAIRD.

ANNIE HARDIE.

HELEN C. KEEGANS.

ISABEL W. TAYLOR.

MARGARET MACAULAY.

KATE SANDERSON.

KATHERINE CURRAN.

MYRA E. SMITH.

MARGARET MACGREGOR.

ELIZABETH C. MACDONALD.

JEAN HANLEY.

ELIZABETH L. DICK.

Practising Midwives.— During the year 231 certified midwives (188 resident within and 43 resident outwith the Middle Ward District) notified their intention to practise—a decrease of 4 compared with the number for last year.

The qualifications of the practising midwives are as follows:—

	1919.	1920.	1921.	1922.	1923.
Certificate of the Central Midwives Board (Scotland),	36	45	41	49	50
Certificate of the Central Midwives Board (England),	2	2	2	2	2
Trained and certified by the Royal Maternity Hospital (Glasgow),	7	7	8	9	7
Trained and certified by the Royal Maternity Hospital (Edinburgh),	1	1	1	1	1
In <i>bona fide</i> practice and certified under the Act,	188	183	179	174	171
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	234	238	231	235	231
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>

The above table shows that there were 60 certificated and 171 uncertificated midwives, as compared with 61 and 174 in 1922.

Change of Address.—The changes of address of 18 midwives were reported to the Board; 11 removed from one part of the District to another and 7 left the District, 6 of the latter going to America.

Deaths.—Four midwives—1 certificated and 3 uncertificated—died during the year, their numbers on the Roll being 150, 155, 218, and 235.

Voluntary Resignation.—One midwife resigned from practice.

Inspection of Midwives.—The routine inspections of midwives resident in the District numbered 807, and in addition there were 70 special inspections. The latter were made chiefly on account of failure to comply with the Rules, and because of the occurrence of infectious disease, while a few were made for tuitional purposes. The reports of the inspectors show that in a relatively small number of cases there are midwives who even yet are not in possession of an outfit which can be regarded as a complete equipment for their work, and that there are still a few who from a domestic and personal standpoint cannot be looked upon as satisfactory.

Disciplinary Cases.—It was found necessary only in one instance to report a midwife to the Central Midwives Board. The midwife in question had failed to comply with certain regulations of the Board, and

the charges against her having been proved, her name was removed from the Roll of Midwives, and in addition thereto, in terms of Section 8 of the Midwives Act, she was prohibited from attending women in childbirth in any other capacity. The charges of which she was found guilty were:—

“(1) That, being in attendance as a midwife at the confinement of M. C., Uddingston, on or about 21st June, 1923, you were guilty of negligence and breaches of the Rules in the following respects:—

- (a) The patient suffering from a tear in the perineum, you failed to call in to your assistance a registered medical practitioner, using for this purpose the form of sending for medical assistance properly filled up and signed by you as required under Rules E. 20, E. 21 (3), and E. 23 (a).
- (b) You neglected to take and record the pulse and temperature of the patient at each visit, as required by Rule E. 14.
- (c) You neglected to enter your records of pulse and temperature in a book or on a chart carefully preserved, as required by Rule E. 14.
- (d) Having been in attendance upon a patient suffering from puerperal fever you neglected to notify the Local Supervising Authority thereof, as required by Rules E. 6 and E. 22 (1) (e).

“(2) That you are not scrupulously clean in every way, as required by Rule E. 2.

“(3) That when called to a confinement you do not take with you the bag and appliances required by Rule E. 3.”

Attendance at Confinement.—There were notified during the year the births of 6,027 living children, and of 218 children stillborn. The number of live births notified constituted 96·9 per cent. of the total births registered, which amounted to 6,218. Including still births the total number of births notified was 6,245, and of these, according to the information given on the Notification Forms, 3,109 (49·7 per cent.) were attended by certified midwives; 556 (8·9 per cent.) by doctors and midwives; 2,462 (39·4 per cent.) by doctors; and 114 (1·8 per cent.) by handy-women. In 4 cases no attendant was present at the birth.

The following table gives, according to Parish, the number of midwives practising within the Middle Ward, the births notified, and the person in attendance at the confinement:—

TABLE I.—SHOWING THE NUMBER OF MIDWIVES, BIRTHS NOTIFIED, AND THE ATTENDANT AT CONFINEMENT AS INDICATED IN THE NOTIFICATION FORM.

ATTENDANT AT CONFINEMENT.								
PARISH.		Number of Midwives.	Births Noti- fied.	Doctor.	Doctor and Midwife.	Midwife.	Handy- woman.	B.B.A
Avondale, ...	...	2	107	72	12	22	1	—
East Kilbride, ...	...	—	103	92	2	4	5	—
Glasford, ...	...	2	35	18	7	10	—	—
Stonehouse, ...	...	6	112	42	2	66	2	—
Blantyre, ...	...	17	568	84	47	427	10	—
Bothwell, ...	...	58	1,808	481	252	1,053	21	1
Cambuslang, ...	...	16	695	229	30	427	9	—
Cambusnethan, ...	...	17	450	338	24	81	7	—
Dalserf, ...	...	29	578	302	47	215	14	—
Dalziel, ...	...	1	46	19	1	24	1	1
Hamilton, ...	...	3	238	67	17	144	10	—
New Monkland, ...	...	16	402	92	55	242	10	2
Old Monkland, ...	...	16	538	188	29	306	15	—
Shotts, ...	...	5	565	438	30	88	9	—
Midwives resident outwith District		43	—	—	—	—	—	—
Total, ...		231	6,245	2,462	556	3,109	114	4

In previous reports the figures now given in two columns under "Doctor" and "Doctor and Midwife" were combined in one column under the heading "Doctor." The division of the figures now given effect to shows that of the total number of 3,018 cases where a medical practitioner was in attendance, only in 556 was a certified midwife also engaged, whereas in the others—2,462 cases—the mother while having the advantage of skilled assistance at confinement, was apparently content with the help of a relative, a neighbour, or a handywomen, throughout the lying-in period.

This practice of midwifery-nursing being carried on by unqualified women has statutory recognition through the unfortunate wording of Section 1 (2) of the Midwives (Scotland) Act, and the extent to which the section is taken advantage of, is evidenced by the figures given above. Many of the handywomen involved are quite unqualified for the work they undertake, but they are popular with their patients, and their practice is encouraged, as they, in many cases, charge a smaller fee and

carry out household work in addition to their nursing duties. They enter into unfair competition with the certified midwives; from their lack of knowledge they are a source of danger to their patients, and therefore an amendment of the Midwives (Scotland) Act to remove the possibility of unqualified practice is worthy of serious consideration by the authorities concerned.

The amount of work undertaken by individual midwives resident within the district varied very considerably. There were 49 certificated midwives of whom 42 were engaged in actual practice, and the number of cases attended by the latter averaged 29·3 throughout the year, the maximum being 163 and the minimum 1. Of the 7 who did not practise as midwives, several acted regularly as nurses in cases attended by medical practitioners. With reference to the uncertificated midwives whose number was 139, 14 had no cases during the year, although as in the case of the certificated midwives, a number of them practised in the capacity of nurses. Of the 125 actually engaged in midwifery work, the average number of confinements per midwife amounted to 17·7, the maximum being 119 and the minimum 1.

Infantile Deaths.—The total number of deaths of infants under the age of one year was 481, and of this number 168 occurred within 10 days of birth. The attendant at birth in the latter cases was as follows:—certified midwife, 33; doctor and midwife, 1; medical practitioner, 108; no attendant, 4; institution cases, 22.

The causes of death in the 168 cases referred to were, premature birth, 78; atrophy, debility, and marasmus, 44; congenital malformation, 15; injury at birth, 8; atelectasis, 6; digestive diseases, 5; convulsions, 3; respiratory diseases, 2; and others, 7.

***Still Births.**—218 still births were notified during the year and special enquiries were made into 185 of these. Of the latter number a midwife alone was in attendance in 34 cases, a doctor and a midwife together in 65 cases, and a medical practitioner alone in 47 cases. Thirty-nine occurred in institutions.

***Puerperal Septicæmia** (including all notifications of puerperal fever).—Sixty-two cases were brought to the notice of the Department, a decrease of 7 compared with last year. The confinements were conducted as follows —by a midwife alone in 21 cases; by a doctor and a midwife in 19 cases; by a handy-woman in 2 cases; and by a medical practitioner alone in 10 cases. Three cases occurred in institutions, 1 of them following an abortion, and in 7 cases no attendant was present, 4 of the latter being abortions. Seventeen deaths occurred, and in these cases the attendant at confinement was as follows:—midwife, 2; doctor and midwife, 7; doctor alone, 4; doctor and handy-woman, 1; no attendant, 3.

***Ophthalmia Neonatorum.**—The total number of cases brought under notice was 61, and of these 24 (39·3 per cent.) were notified by medical practitioners ; 15 (24·5 per cent.) by certified midwives ; and 17 (27·8 per cent.) were discovered in the District by the Nurse Health Visitors. Three were notified from the County Hospital, Bellshill, 1 from the City of Glasgow, and 1 from the Burgh of Motherwell. The persons in attendance at birth in the above cases were—midwives, 30 ; doctors and midwives, 9 ; doctors, 19 ; 3 occurred in institutions.

***Examination of Urine.**—The attention of midwives was again directed to Rule E. 1 (*a*) by which they are required to examine the urine in every case when they are engaged to attend a woman in confinement, and at the same time arrangements were made that specimens could be sent to the County Laboratory or to the nearest Child Welfare Centre for examination, and outfits for this purpose were issued. Thirty-four midwives submitted 200 specimens for examination at the County Laboratory, and in addition 203 specimens were examined at the Child Welfare Centres, chiefly, however, at the instigation of the Health Visitors Staff. The result of each examination was reported, both to the midwife who submitted the specimen, and also to the Local Nurse Health Visitor, who was instructed to keep the case under observation and to obtain medical assistance if such were required. Arrangements were also made with the County Maternity Hospital for the notification to the Public Health Department of every case of an expectant mother, who, on admission to the Institution, was found to be suffering from albuminuria, the object being, that the Inspector of Midwives might make enquiries into the action taken by the midwife (if any) who had been in attendance on the case prior to admission.

Medical Assistance.—Medical aid was sought by midwives in 313 instances, an increase of 85 compared with last year. The conditions for which assistance was obtained are detailed in the following table:—

* These conditions are more fully dealt with in the Child Welfare Section of the Annual Report.

TABLE II.—SHOWING THE RECORDS OF SENDING FOR MEDICAL ASSISTANCE, CLASSIFIED ACCORDING TO PARISH AND THE CONDITIONS REQUIRING MEDICAL AID. THE TOTALS ARE ALSO SHOWN FOR EACH YEAR SINCE 1917.

REASONS FOR MEDICAL ASSISTANCE.	Parish.										Total during						
	Blantyre.	Bothwell.	Cambuslang.	Cambusnethan.	Dalserf.	Dalziel.	Hamilton.	New Monkland.	Old Monkland.	Shotts.	1923	1922	1921	1920	1919	1918	1917
MOTHER—																	
Delayed labour (unqualified),	44	20	10	—	—	1	6	1	2	1	85	63	64	51	53	49	50
Contracted Pelvis,	1	6	1	—	—	—	—	—	—	—	8	3	—	2	1	2	2
Uterine Inertia,	5	8	1	—	—	—	—	—	—	—	14	9	11	7	3	9	6
Abnormal Presentation,	6	7	8	1	—	—	—	4	1	1	28	21	12	10	19	15	23
Placenta Praevia,	—	—	—	—	—	—	—	—	—	—	—	1	—	2	—	3	3
Ante-partum Hæmorrhage,	4	5	3	—	—	—	—	—	—	—	12	4	6	5	5	4	1
Post-partum Hæmorrhage,	1	2	2	—	—	—	1	—	—	—	6	4	6	8	4	7	8
Retained Placenta,	4	6	2	—	—	—	—	—	—	—	12	12	4	10	7	14	18
Hydramnios,	—	—	1	—	—	—	—	—	—	—	1	2	1	—	—	—	—
Eclampsia,	1	—	1	—	—	—	—	—	—	—	2	1	—	3	3	2	2
Torn Perineum,	24	6	15	—	—	—	—	2	—	—	47	41	35	17	23	16	9
Abortion (actual or threatened),	1	—	7	—	—	—	—	—	—	—	8	4	4	1	4	—	5
Pyrexia, ...	3	2	8	—	1	—	—	—	—	—	14	6	7	6	6	4	8
Puerperal Sepsis,	—	2	—	—	—	—	—	—	1	—	3	3	1	—	—	—	—
Rigor with rise of temperature,	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—
Phlebitis, ...	1	2	—	—	—	—	—	—	—	—	3	1	—	—	—	—	—
Influenza, ...	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Cystitis, ...	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
General Debility,	3	—	—	—	—	—	—	—	—	—	3	7	4	3	1	1	4
Other causes,	3	4	5	—	—	—	—	5	—	—	17	11	8	5	7	16	8
CHILD—																	
Still Birth, ...	2	7	6	—	—	—	3	—	2	—	20	8	3	1	6	2	2
Premature Child,	6	2	3	—	—	—	—	2	—	—	13	8	5	6	11	3	6
Ophthalmia Neonatorum,	—	3	8	—	—	—	—	—	—	—	11	9	11	1	7	7	5
Congenital Malformation,	—	1	1	1	—	—	—	—	—	—	3	3	—	—	—	—	—
Hæmorrhage of Cord, ...	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Convulsions,	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Debility, ...	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—
Anencephalus,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Hydrocephalus,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Atelectasis, ...	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1
Spina Bifida,	—	—	—	—	—	—	—	—	—	—	—	1	2	—	—	—	2
Other causes,	—	1	1	—	—	—	—	1	—	—	3	2	3	6	7	4	5
	109	84	83	2	1	1	10	15	6	2	313	228	189	146	167	158	170

Payment of Doctors' Claims.—The claims sent in by medical practitioners under Section 22 of the Act numbered 51, and amounted to £61 17s. 6d., as compared with 33 for the previous year, amounting to £38 13s. 3d. The social circumstances were such as to warrant recovery of £21 15s., from the husbands or guardians, but of this amount the sum actually repaid amounted only to £3 1s.

Provision of Certified Midwives in Necessitous Cases.—In terms of the Maternity and Child Welfare Regulations dated 24th May, 1918, the cost of the attendance of certified midwives was met by the Local Authority in 5 cases. The fee paid in each instance was that recognised by the local branches of the Scottish Midwives Association, viz., 25s.

In addition to providing midwifery services in such cases, an arrangement was entered into with the Chapelton and Glasford District Nursing Association, under which the Local Authority agreed to guarantee a certain minimum fee to the Association for the services of the District Nurse as a midwife, Chapelton and Glasford being districts where the midwifery service was insufficient.

Compensatory Fees.—In connection with a number of mothers admitted to the County Maternity Hospital, Bellshill, for confinement, it was found that patients had been removed to hospital, either at the instance of the medical practitioner called to the case under Rule E. 20-21, by the midwife in attendance, or by the medical officer at one of the Child Welfare Centres to which the case had been referred for advice by the midwife. In either instance, the removal of the patient to institution resulted in the midwife losing her case, and as the midwife's action had been taken for the benefit of the patient and resulted in financial loss to her, it was agreed that a certain fee should be paid by the Local Authority as compensation for the loss entailed. After consultation with the Scottish Board of Health, the compensatory fee was fixed at 10s. Throughout the year twelve such fees were paid.

Liability to be a Source of Infection.—Thirteen notifications were received from midwives on account of puerperal fever, 6; scarlet fever, 1; ophthalmia neonatorum, 1; diphtheria, 1; measles, 1; and erysipelas, 3.

Form of having Laid Out a Dead Body.—Three notifications were received, 1 being for a mother and 2 for infants.

Notification of Death.—One notification of the death of an infant was received.

Intention to Practise.—A list of the midwives who notified their intention to practise during the year was forwarded to the Board on 6th February, 1924.

III.—GENERAL SANITATION.

In the Report of the District Sanitary Inspector, which is incorporated, will be found an account of the work done under the headings "Houses let in Lodgings"; "Tents, Vans, and Sheds"; "Workshops"; "Scavenging"; "Private Streets"; "Nuisances"; "Interments," &c.

Housing.

On 31st July the Housing, &c., Act, 1923, was placed on the Statute Book. This Act, which was, with certain modifications, made applicable to Scotland, provided for a Government contribution in respect of each house provided by a Local Authority under the Act, the contribution to be at the rate of £6 per house, payable annually for a period of twenty years. The Act also empowered Local Authorities to promote the building of houses by means of loans and grants to private persons, public utility societies, &c. The Government contribution of £6 per house per annum is considered insufficient, at least so far as Scotland is concerned, it being generally admitted that climatic conditions in Scotland render it necessary that houses built there must in certain respects be of more substantial construction than is necessary in England. The response on the part of private builders and building societies to the Local Authority's offer to provide loans in connection with the building of dwelling-houses might be described as encouraging, but the problem of providing sanitary dwellings sufficient to the needs of the working classes is as far from solution as ever.

The action taken by the Public Health Department for the improvement of existing dwellings by the introduction of modern sanitary conveniences and public services is dealt with in detail in the Sanitary Inspector's report, and a brief reference here will suffice. Considerable progress was made during the year in carrying out structural alterations and improvements. The work undertaken by the Building Inspector is fully dealt with in his report, which is incorporated herewith.

Post-War Housing Scheme.—The following tabular statement shows the progress made in connection with the erection of State-aided houses during the years 1921 to 1923, inclusive:—

Year.	Houses Occupied.	Houses Ready for Occupation.	Houses in Progress.	Total.
1921, ...	253	85	2,300	2,638
1922, ...	1,344	152	1,822	3,318
1923, ...	3,054	65	297	3,416

The position of the post-war housing scheme at the close of the year is shown in detail in the following statistical information, supplied by Mr. P. C. Smith, the Committee's Housing and Town Planning Engineer :—

POST-WAR HOUSING SCHEME—PROGRESS OF WORK.

SCHEME.	Houses occupied.	Ready for occupation.	Houses in progress.	Finishing.	Plastered or ready for plasterer.	Roofed and slated or ready for slater.	Ready for roof.	Main joist level.	Sleeper joist level.
Strathaven, - -	98	—	—	—	—	—	—	—	—
Auchinraith, - -	227	17	26	26	—	—	—	—	—
Bothwell Road, - -	122	—	—	—	—	—	—	—	—
Viewpark, - -	200	—	—	—	—	—	—	—	—
Tannochside, - -	40	—	—	—	—	—	—	—	—
Calder Road (West),	208	2	—	—	—	—	—	—	—
Calder Road (East),	56	—	—	—	—	—	—	—	—
North Road, - -	40	—	—	—	—	—	—	—	—
Gas Works, - -	174	2	—	—	—	—	—	—	—
Coronation Road, -	88	—	—	—	—	—	—	—	—
Chapelhall, - -	50	—	—	—	—	—	—	—	—
Newarthill, - -	90	3	1	1	—	—	—	—	—
Carnbroe, - -	26	—	—	—	—	—	—	—	—
Croft Road, - -	112	—	—	—	—	—	—	—	—
Wellshot, - -	88	—	—	—	—	—	—	—	—
Lightburn, - -	170	10	10	10	—	—	—	—	—
Tollpark, - -	90	—	—	—	—	—	—	—	—
Overtown, - -	114	—	—	—	—	—	—	—	—
Hamilton Road, -	99	7	10	10	—	—	—	—	—
Hareleeshill, - -	80	8	46	10	30	6	—	—	—
Ashgillhead, - -	54	2	24	24	—	—	—	—	—
East Kilbride, - -	82	4	—	—	—	—	—	—	—
Meikle Earnock, -	34	—	—	—	—	—	—	—	—
Greengairs, - -	20	—	—	—	—	—	—	—	—
Calderbank, - -	112	—	—	—	—	—	—	—	—
Carmyle, - -	—	—	58	—	12	22	2	6	4
Baillieston, - -	190	8	2	2	—	—	—	—	—
Broomhouse, - -	6	—	24	24	—	—	—	—	—
Shotts, - -	230	2	46	46	—	—	—	—	—
Eastfield, Harthill, -	—	—	50	—	12	24	6	8	—
Cleland, - -	50	—	—	—	—	—	—	—	—
Salsburgh, - -	44	—	—	—	—	—	—	—	—
Stonehouse, - -	60	—	—	—	—	—	—	—	—
Total, -	3,054	65	297	153	54	52	8	14	4

With regard to the provision by the Local Authority of additional houses under the Housing, &c., Act, 1923, the Middle Ward District Committee agreed to provide 750 houses under the subsidy scheme, allocated as follows:—

Blantyre, ...	50	Overtown and Waterloo,	30
Bothwell Village, ...	100	Tarbothie, ...	100
Bellshill, ...	50	Netherton, ...	40
Holytown, New Stevenston		Caldercruix, ...	50
and Carfin, ...	140	Bargeddie, ...	40
Cambuslang, ...	50		—
Newmains and Morningside,	100	Total,	750

Negotiations are proceeding with regard to the acquisition of sites, but otherwise very little progress has been made.

Improvement of Insanitary Areas.—In view of the limited amount of the total grant which the Board were prepared to contribute towards meeting the annual loss on the District Committee's draft scheme for the improvement of insanitary areas, the scheme was restricted to embrace 610 houses, to replace the following:—

Low Blantyre Village, ...	92	West Benhar Rows, ...	90
Forrest Place, High Blantyre,	56	Green Street, Bothwell, ...	12
Napier's Square, New		93-99 Main Street, Baillieston,	18
Stevenston, ...	40	Buchanan Street, Baillieston,	32
Jerviston Square, New		Cuilhill, ...	22
Stevenston, ...	56	Chapel Square, Morningside,	22
Marion Street, Pitt Street,		Meadowhill Rows, Larkhall,	40
&c., Mossend, ...	58		—
Black Land, Bellshill, ...	16	Total,	610
Merryton Rows, Hamilton,	20		—
Ravenscraig, Motherwell,	36		—

The progress made with regard to the provision of these houses is the same as with the houses to be erected under the Housing, &c., Act, 1923.

Town Planning.

Early in the year the Committee decided to undertake the formulation of a definite Town Planning scheme for the Shotts and Dykehead Area. The general position is unchanged.

Water Supply.

Samples of water from two private sources and one public supply were submitted for chemical analysis. The analysis of the sample

from the Middle Ward water supply showed that the sample contained mineral matter in suspension. The presence of the mineral matter was found to have been the result of scouring of the service pipe. Steps were at once taken by the Water Engineer to remove the cause of complaint.

One of the samples taken from a private source was found on analysis to be unfit for domestic purposes, as it contained an excess of iron. The other sample was taken from the supply to Quarter Village, in the Parish of Hamilton. This private supply, which is derived from a reservoir at Airybog, has been the subject of inspection and adverse report on various occasions, extending over a period of many years. The sample taken in this instance showed clearly that the water was quite unsuitable for potable purposes. Arrangements have now been completed for the introduction of Middle Ward water.

Drainage and Sewage Disposal.

The work done under this heading is dealt with in detail in the Sanitary Inspector's report, and in the Rivers Pollution Prevention section of the County report.

Dairies.

On 15th June, 1923, the Scottish Board of Health issued the Milk (Special Designations) Order (Scotland), 1923, under Sections 3 and 14 of the Milk and Dairies (Amendment) Act, 1922. This Order, which came into operation on 1st July, revoked the two Orders of 1922 on the subject, and gave effect to certain detailed amendments which experience had shown to be advisable. During the year four producers' licences under the Order were granted, as follows:—

No.	Name of Licensee.	Location of Premises.	Nature.
1.	Lord Hamilton of Dalzell,	Dalzell Home Farm,	Certified Milk.
2.	Wood, Andrew,	Nerston, East Kilbride,	Grade A Milk.
3.	Middle Ward District Committee,	Hairmyres Farm, Kilbride,	Certified Milk.
4.	Murray, James,	Stramolloch, Chapelton,	Grade A (Tuber- culin tested) Milk.

At the last inspection carried out at Dalzell Home Farm, it was ascertained that the daily yield of certified milk was about 30 gallons. Half of this supply was retailed in the Burgh of Motherwell, 7 gallons were sent to a wholesale firm in the City of Glasgow, and the remainder was used for other purposes.

In August, 1923, the daily yield of Grade A milk at Nerston, East Kilbride, was 70 gallons, practically all of which was consigned at the wholesale rate for ordinary milk to a distributor in Glasgow.

At the last official inspection of the herd and premises at Hairmyres Farm, on 1st April of the current year, the daily production of certified milk amounted to 70 gallons. All the milk produced at this farm is consumed at the Sanatorium Colony, with the exception of 5 gallons daily consigned to the small County Hospital, Blantyre, which is devoted to the treatment of babies and mothers under the Child Welfare Scheme.

When Stramilloch Farm, Chapelton, was last inspected, the daily yield of Grade A (tuberculin tested) milk was 22 gallons. With the exception of a small quantity used at the farm, all the milk produced here is consigned to a dairy company in Glasgow as ordinary milk, so that no financial advantage is derived. We are endeavouring to make arrangements to acquire some of this supply for the County Sanatorium, Stonehouse.

It is gratifying to be able to record that, with a single exception, we have been able to arrange for all the Middle Ward hospitals and sanatoria being supplied with tubercle-free milk, the bulk of which is produced on farms in the Upper Ward District. The exception is the County Sanatorium, Shotts, where transport difficulties compel us to continue to receive the milk supply from a local farmer, who is arranging to qualify for a licence under the Regulations.

The sanitary condition of dairy farm premises received considerable attention from the Public Health staff during the year, and as a result plans have been lodged for the erection of eleven new byres of approved design.

STAFFING ARRANGEMENTS.

Early in the year Dr. Arthur Anderson was appointed clinical assistant to Dr. Johnstone at Hairmyres Sanatorium-Colony.

Report by the Buildings Inspector.

Building Regulations.

The plans submitted during the course of the year amounted to 208, a considerable number of which had not been prepared according to the Bye-laws, thus necessitating a great deal of correspondence and numerous meetings before matters were adjusted. Five sets of plans were withdrawn. During the course of construction of the buildings 1,592 inspections were made, resulting in the detection of a number of contraventions which were reported to and dealt with by the Committee.

1,005 smoke tests were made of the drains and plumber work of new properties. As in the previous year, special attention was paid to this work, with a view to having all tests carried out immediately, in order to ensure the utmost progress in connection with the houses, and it is pleasing to report that not one single complaint of delay was received.

In addition to the plans lodged under the Building Bye-laws, 64 plans were received and approval granted for various erections of a minor character.

NEW BUILDINGS UNDER BY-LAW NO. 41. — Houses and shops, 96; workshops, 15; public buildings, 33; and other buildings, 13; total plans, 157.

Welfare Centres are again the outstanding feature of the public buildings for which plans were approved. The planning and arrangements of these are in all cases well thought out, and as they are most likely to have a beneficial effect on the community it is hoped that every success will attend the efforts of those responsible for their conception and management.

ALTERATIONS IN THE MODE OF OCCUPANCY UNDER BY-LAW NO. 51. — Houses and shops, 32; workshops, 6; public buildings, 7; and other buildings, 1; total plans, 46.

HOUSING, &c., ACT, 1923. — 12 applications, comprising 42 houses, were received and granted. One was withdrawn. Commencement notices received, 9.

Advantage is being taken by many private builders of the benefits under this scheme, which has entailed considerable extra work in the inspection of the plans, specifications, and buildings, as the construction had to be on similar lines to, or as near as, the standard indicated in the general specification issued by the Board of Health for state-aided houses.

Housing, Town Planning, &c. (Scotland) Act, 1919.

5 applications (embodying 20 houses of two apartments) under Section 44 of the above Act were received for the erection and conversion of existing dwellings into two-apartment houses. (See Table II.)

The plans for these were in all cases reported to the Public Health and Housing Committees, and approved only after very careful consideration.

TABLE I.—NUMBER OF SETS OF PLANS LODGED DURING THE YEAR 1923, IN ACCORDANCE WITH BY-LAWS 41 AND 51, CLASSIFIED ACCORDING TO THE NATURE OF THE BUILDINGS SET FORTH IN PLANS.

PARISH.	Plans lodged for New Buildings under By-Law 41.				Plans lodged for alterations in mode of occupancy of Existing Buildings under By-Law 51.			
	Houses and Shops.	Work-shops.	Public Buildings.	Others.	Houses and Shops. *	Work-shops.	Public Buildings.	Others.
Avondale, - -	5	2	...	4	5	...	...	...
East Kilbride, -	13	...	1	...	2	...	...	...
Glasford, - -	1	...	...	...	1	...	...	...
Stonehouse, - -	1	...	1	...	...	...	...	...
Blantyre, - -	2	1	...	1	1	...	...	...
Bothwell, - -	21	1	11	1	2	1	...	...
Cambuslang, - -	10	...	3	1	...	...	1	...
Cambusnethan, -	8	1	4	2	2	1	1	...
Dalserf, - -	9	4	3	1	2	1	2	...
Dalziel, - -	1	1	...	...	2	1	...	...
Hamilton, - -	5	...	1	...	2	...	...	...
New Monkland, -	3	...	5	...	5	1	1	...
Old Monkland, -	7	1	1	2	1	...	1	1
Shotts, - - -	10	4	3	1	7	1	1	...
MIDDLE WARD, -	96	15	33	13	32	6	7	1
TOTAL FOR 1922, -	54	13	8	9	27	7	4	5

* In this column are included plans for additions to existing dwelling-houses. In this way 30 apartments were added to 17 houses.

TABLE II.—SHOWING NUMBER OF HOUSES AND SHOPS SET FORTH IN PLANS SUBMITTED UNDER BY-LAWS REGULATING THE BUILDING OR REBUILDING OF HOUSES OR BUILDINGS DURING 1923.

PARISH.	NEW BUILDINGS OF						TOTAL.
	One Apartment.	Two Apartments.	Three Apartments.	Four Apartments.	Five Apartments and upwards.	Shops.	
Avondale, - -	...	2	...	3	4	2	11
East Kilbride, -	3	108	209	...	320
Glasford, - -	1	...	...	1
Stonehouse, -	1	...	...	1	2
Blantyre, - -	1	...	...	1	2
Bothwell, - -	5	2	5	11	23
Cambuslang, -	2	12	13	...	27
Cambusnethan, -	...	1	2	1	2	1	7
Dalserf, - -	1	2	5	8
Dalziel, - -	2	..	...	...	2
Hamilton, - -	6	1	4	...	11
New Monkland,	...	1	1	1	3	...	6
Old Monkland, -	35	25	4	1	65
Shotts, - -	...	16	71	18	7	3	115
MIDDLE WARD,	...	20	129	173	253	25	600
TOTAL FOR 1922,	156	87	30	23	296

Meat Inspection—Slaughter Houses, &c.

ALEXANDER CAMERON, A.R.SAN.I.

As General Superintendent of Abattoirs and District Meat Inspector, I beg to submit the following report:—

It will be observed from table 1 that 1,066 carcasses were totally or partially condemned, and 4,050 carcasses found with local conditions in which organs only had to be condemned, these combined being 23·13 per cent. of the total animals slaughtered.

Of the 5,116 diseased animals, 3,822 were affected with tuberculosis of which 218 were totally, 741 partially, and 2,863 cases in which organs only were condemned.

Tables II and III show in detail for each slaughterhouse, the class of animals slaughtered, and the extent to which disease was prevalent both in public abattoirs and private slaughterhouses throughout the district.

Table IV shows the number of organs and the diseases for which they were condemned, in cases where organs only were condemned, in public abattoirs and private slaughterhouses.

TABLE I.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.											
		Tuberculosis.						Other Diseases.					
		Carcases.				Organs only.		Carcases.				Organs only.	
Class.	Num- ber.	Wholly.		Partially.				Wholly.		Partially.			
		No.	%.	No.	%.	No.	%.	No.	%.	No.	%.	No.	%.
Cattle -	10,447	198	1·81	741	7·09	2,767	26·48	54	·51	22	·21	920	8·8
Calves -	1,585	21	1·33	—	—	—	—	17	1·07	1	·06	3	·18
Sheep -	8,618	—	—	—	—	—	—	8	·09	—	—	240	2·78
Swine -	1,323	7	·53	—	—	96	7·25	2	·15	1	·07	24	1·8
Horses -	140	—	—	—	—	—	—	1	·7	1	·7	—	—
Total -	22,113	218	·98	741	3·35	2,863	12·94	82	·37	25	·11	1,187	5·36

Bellshill.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, -	1,805	141	372	568	28	8	325
Heifers, -	497	9	8	69	—	1	24
Bulls, -	71	—	4	15	2	—	2
Bullocks, -	583	—	3	30	—	1	56
Calves, -	109	6	—	—	3	—	—
Sheep, -	1,853	—	—	—	2	—	166
Swine, -	316	—	—	25	1	—	3
Total, -	5,234	156	387	707	36	10	576

Bellshill.—TABLE III.—OTHER DISEASES FOR WHICH CARCASSES WERE TOTALLY OR PARTIALLY CONDEMNED.

DISEASE.	Cows.	Heifers.	Bulls.	Bullocks.	Calves.	Sheep.	Swine.	Total.
Injury, - - -	4	—	—	1	—	—	—	5
Abscess, - - -	3	1	—	—	—	—	—	4
Emaciation, Phys., -	1	—	1	—	—	1	1	4
Dropsy, General, -	13	—	—	—	—	—	—	13
Malignant Neoplasms,	3	—	1	—	—	—	—	4
Asphyxia, - - -	—	—	—	—	2	—	—	2
Gangrene, - - -	1	—	—	—	—	—	—	1
Gastro-Enteritis, -	3	—	—	—	—	—	—	3
Enteritis, - - -	—	—	—	—	1	—	—	1
Septic Metritis, - -	1	—	—	—	—	—	—	1
Pneumonia, - - -	2	—	—	—	—	1	—	3
Pyæmia, - - -	1	—	—	—	—	—	—	1
Septicæmia, - - -	1	—	—	—	—	—	—	1
Septic Peritonitis, -	1	—	—	—	—	—	—	1
Pronounced Anæmia, -	2	—	—	—	—	—	—	2
	36	1	2	1	3	2	1	46

Blantyre.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
		Wholly.	Partially.		Wholly.	Partially.	
Cows, -	941	7	152	532	6	5	13
Heifers, -	293	7	3	30	1	—	19
Bulls, -	27	1	1	2	—	—	—
Bullocks, -	476	—	3	15	—	—	23
Calves, -	143	6	—	—	2	—	—
Sheep, -	1,092	—	—	—	4	—	3
Swine, -	244	2	—	10	1	—	—
Total, -	3,216	23	159	589	14	5	58

Blantyre.—TABLE III.—OTHER DISEASES FOR WHICH ANIMALS WERE TOTALLY OR PARTIALLY CONDEMNED.

DISEASE.	Cows.	Heifers.	Calves.	Sheep.	Swine.	Total.
Pyæmia, Umbil., -	—	—	2	—	—	2
Pericarditis, Septic, -	3	—	—	—	—	3
Emaciation, Phys., -	2	1	—	3	—	6
Septic Metritis, -	2	—	—	1	—	3
Jhones Disease, -	1	—	—	—	—	1
Septicæmia, -	1	—	—	—	—	1
Injury, -	1	—	—	—	—	1
Pleuritis, -	1	—	—	—	—	1
Swine Erysipelas, -	—	—	—	—	1	1
	11	1	2	4	1	19

Larkhall.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
Class.	Number.	Carcases.		Organs only.	Carcases.		Organs only.
		Wholly.	Partially.		Wholly.	Partially.	
Cows, -	1,085	9	128	573	5	2	54
Heifers, -	202	1	1	31	—	—	12
Bulls, -	56	—	—	8	—	—	1
Bullocks, -	445	—	—	53	—	—	31
Calves, -	303	1	—	—	5	—	3
Sheep, -	1,026	—	—	—	2	—	39
Swine, -	218	3	—	36	—	—	21
Total, -	3,335	14	129	701	12	2	161

Larkhall. — TABLE III.—OTHER DISEASES FOR WHICH CARCASSES WERE TOTALLY OR PARTIALLY CONDEMNED.

DISEASE.	Cows.	Calves.	Sheep.	Total.
Pyæmia, Umbil., - -	—	3	—	3
Peritonitis, - - -	—	—	1	1
Septicæmia, - - -	1	—	—	1
Emaciation, Phys., -	1	2	—	3
Gastro-Enteritis, - -	—	—	1	1
Actinomycosis, - - -	1	—	—	1
Injury, - - - - -	1	—	—	1
Pericarditis, - - -	1	—	—	1
Dropsy, General, - -	1	—	—	1
Uræmia, - - - - -	1	—	—	1
	7	5	2	14

Strathaven.—TABLE II. — ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
Class.	Number.	Carcases.		Organs only.	Carcases.		Organs only.
		Wholly.	Partially.		Wholly.	Partially.	
Cows, -	599	8	23	353	9	4	163
Heifers, -	425	—	5	171	—	1	49
Bulls. -	42	1	—	21	—	—	8
Bullocks, -	11	—	—	—	—	—	2
Calves, -	582	6	—	—	5	1	—
Sheep, -	1,219	—	—	—	—	—	14
Swine, -	204	1	—	24	—	1	—
Total, -	3,082	16	28	569	14	7	236

Strathaven.—TABLE III.—OTHER DISEASES FOR WHICH CARCASSES WERE TOTALLY OR PARTIALLY CONDEMNED.

DISEASE.	Cows.	Heifers.	Calves.	Swine.	Total.
Gastritis, - - -	1	—	—	—	1
Dropsy, General, - -	1	—	—	—	1
Septicæmia, - - -	1	—	—	—	1
Mammitis, Acute Septic,	2	—	—	1	3
Injury, - - - -	4	1	1	—	6
Pericarditis, - -	1	—	1	—	2
Pyæmia, Umbil., - -	—	—	3	—	3
Pneumonia, - - -	1	—	—	—	1
Septic Metritis, - -	2	—	—	—	2
Emaciation, Phys., -	—	—	1	—	1
	13	1	6	1	21

Shotts.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, -	33	—	3	7	—	—	—
Heifers, -	59	—	—	4	—	—	3
Bulls, -	5	—	—	1	—	—	—
Bullocks, -	699	—	1	41	—	—	29
Calves, -	61	—	—	—	—	—	—
Sheep, -	648	—	—	—	—	—	—
Swine, -	27	—	—	1	—	—	—
Total, -	1,532	—	4	54	—	—	32

Baillieston.—TABLE II.—ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcases condemned wholly or partially. Carcases in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcases.		Organs only.	Carcases.		Organs only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, -	89	2	3	42	2	—	20
Heifers, -	275	—	4	8	—	—	—
Bulls, -	43	—	—	—	—	—	—
Bullocks, -	34	—	—	—	—	—	—
Calves, -	295	—	—	—	2	—	—
Sheep, -	1,671	—	—	—	—	—	—
Swine, -	80	1	—	—	—	—	—
Horses, -	140	—	—	—	1	1	—
Total, -	2,627	3	7	50	5	1	20

Baillieston.—TABLE III.—OTHER DISEASES FOR WHICH CARCASSES WERE TOTALLY OR PARTIALLY CONDEMNED.

Disease.	Horses.	Cows.	Calves.	Total.
Emaciation and Dropsy, -	1	1	—	2
Peritonitis, - - -	1	—	—	1
Gastro-Enteritis, - -	—	1	2	3
	2	2	2	6

Stonehouse. — TABLE II. — ANIMALS SLAUGHTERED, NUMBER HAVING CARCASSES WHOLLY OR PARTIALLY CONDEMNED, AND NUMBER HAVING ORGANS ONLY CONDEMNED.

Animals Slaughtered.		Carcasses condemned wholly or partially. Carcasses in which the Organs only were condemned.					
		Tuberculosis.			Other Diseases.		
		Carcasses.		Organs only.	Carcasses.		Organs Only.
Class.	Number.	Wholly.	Partially.		Wholly.	Partially.	
Cows, -	173	2	6	90	1	—	43
Heifers, -	122	—	1	3	—	—	27
Bulls, -	22	—	—	—	—	—	4
Bullocks, -	38	—	—	—	—	—	3
Calves, -	48	2	—	—	—	—	—
Sheep, -	278	—	—	—	—	—	18
Swine, -	66	—	—	—	—	—	—
Total, -	747	4	7	93	1	—	95

One Cow was totally condemned on account of Gastro-Enteritis.

Private Slaughter-Houses.

TABLE II.

District.	Animals Slaughtered.			
	Cattle.	Calves.	Sheep.	Swine.
Greengairs, -	139	2	70	36
Longriggend, -	144	3	40	39
Chapelhall, -	130	7	91	24
Glengowan, -	161	10	77	27
Newarthill, -	65	6	24	16
Cleland, -	335	5	258	1
Harthill, -	323	11	271	25
Total, -	1,297	44	831	168

TABLE III.—ANIMALS CONDEMNED—WHOLLY OR PARTIALLY.

Animals Slaughtered.	Tuberculosis.			Other Diseases.		
	Wholly.	Partially.	Organs.	Wholly.	Partially.	Organs.
Cows, - -	2	16	62	—	—	—
Heifers, -	—	3	14	—	—	2
Bulls, - -	—	—	4	—	—	—
Bullocks, -	—	1	20	—	—	7
Calves, - -	—	—	—	—	—	—
Sheep, - -	—	—	—	—	—	—
Swine, - -	—	—	—	—	—	—
Total, - -	2	20	100	—	—	9

TABLE IV.—RETURN OF DISEASES FOR WHICH ORGANS WERE CONDEMNED.
DISEASES.

Organs Condemned.	Tuberculosis.	Abscess.	Actinomycosis.	Pericarditis.	Pleurisy.	Pneumonia.	Cirrhosis.	Distomatosis.	Mammitis.	Neoplasms.	Bacterial Necrosis.	Angioma.	Bones Dis.	Fatty Infiltration.	Strongylosis Paradoxes.	Traumatism.	Cysts.		
																	Echino- coccos.	Oenurus Cerebralis.	Cysticercus Teniarcticus.
Heads, -	837	2	72	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—
Tongues, -	278	1	43	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Lungs, -	2,383	1	—	1	3	8	—	—	—	—	—	—	—	—	5	—	3	—	2
Hearts, -	12	1	—	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—
Livers, -	434	289	1	—	—	—	255	445	—	4	20	33	—	—	3	—	5	—	3
Stomachs, -	197	335	7	—	—	—	—	—	—	—	—	—	31	—	—	3	—	—	—
Bowels, -	791	31	—	—	—	—	—	—	—	—	—	—	31	—	—	—	—	—	—
Kidneys, -	231	—	—	—	—	—	—	—	—	—	—	—	—	14	—	—	—	—	—
Udders, -	165	3	—	—	—	—	—	696	—	—	—	—	—	—	—	—	—	—	—
Uteri, -	60	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Feet, -	5	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total, -	5,393	665	123	2	3	8	255	445	696	7	20	33	62	14	8	3	8	1	3

Note.—This Table does not include the Viscera of Carcasses wholly or partially condemned.

In dealing with emergency cases, all animals are prohibited from entering public abattoirs or private slaughter-houses unless accompanied by a veterinary certificate certifying that the animal is not suffering from a contagious disease as scheduled under the Contagious Diseases (Animals) Act, except in cases of accident or consequent upon calving.

The strictest care is taken with regard to moribund animals, and where there is the slightest evidence of sepsis, the Medical Officer of Health is brought into touch with the case, and full use is made of the County Laboratory. This has been the practice for the last 20 years, and a very serious view is taken of all such cases.

The number of diseased carcasses found at the different abattoirs varied according to the class or quality of animals slaughtered—*e.g.*, at Bellshill, Blantyre, and to a slight extent at Larkhall, there is a turnover of plain cattle for boning purposes.

During the year 140 horses were slaughtered at Baillieston, of which 2 were condemned on account of disease other than tuberculosis. The horseflesh was exported to Belgium and Holland, *via* Leith; each carcass passed was stamped, and the requirements of the inspection staff in each of these countries complied with. Reports received from both Belgium and Holland regarding the conditions of these carcasses were highly satisfactory.

BUILDINGS.—The accommodation in the seven abattoirs is so far satisfactory. In the older abattoirs repairs have had to be carried out to some extent on buildings and fences, and all this work has had the due consideration of the Sub-Committees concerned. The equipment and fittings are all meantime satisfactory. At Bellshill, however, the wall cranes in the slaughtering booths are becoming somewhat worn out and their replacement will require to be considered. At the other abattoirs the cranes are still in a satisfactory condition.

A small extension to the abattoir feu at Strathaven has been secured, and this is an improvement.

PRIVATE SLAUGHTER-HOUSES.—There were ten licenses granted, being a reduction of one from last year, and the arrangement for the inspection of meat at these places, as previously reported, still continues, and these private slaughter-houses are now completely organised under the new meat regulations. The work of inspection has gone smoothly, and the trade have in no way been hampered as the inspections have been promptly carried out.

There are complaints, however, regarding vans from counties where the system of meat inspection is not so rigorous as in the Middle Ward of Lanarkshire, hawking the district. These vans have received the attention of the District Meat Inspector and a large number of inspections was made. There is evidence that the Local Authorities concerned are taking action under the new meat regulations, and if this be so, it can only be a matter of time till that complaint is removed.

By-laws for the slaughter-houses are in course of preparation, but meantime the certificates are granted on conditions satisfactory to the Local Authority, Medical Officer of Health, and the District Meat Inspector, and are in keeping with the new regulations.

The visits to private slaughter-houses and other places outside abattoirs were as follows:—

Private slaughter-houses,	962
Butchers' shops, vans, &c.,	1,346

Seven special licenses were granted for slaughter of pigs, &c., at farms, and 246 pigs were examined, of which 23 per cent. were found to be more or less affected with tuberculosis. This is a high percentage, but is accounted for by one of the lots being nearly all more or less affected.

COLD STORES.—Steps have been taken to complete the registration of cold stores in accordance with the new meat regulations, and the question of hawkers' vans, and places where meat is stored other than butchers' shops as described in Article 12 of the new meat regulations, is also having consideration.

UN SOUND MEAT.—At abattoirs and private slaughter-houses all condemnations were carried out with owner's consent. The total weight of meat and organs condemned outside of abattoirs, including private slaughter-houses, fleshers' shops, and at farms where special licenses for slaughtering were authorised, amounted to 2,653 lbs.

All condemned meat and residue from the offal business, which is in the hands of the Local Authority, throughout the district, is treated in the Digester Department at Bellshill, producing two products, viz., technical tallow, and residue for manure. A quantity of the condemned meat and organs is sold to a knackery in the district, as also is the residue from the Bellshill Digester.

The question of completing the manufacture of artificial manure has had serious consideration, but it has not so far been considered advisable to incur the expense of putting down the necessary plant; and as this produces (independent of what care is taken) an objectionable effluvia which is not desirable within the confines of abattoirs where meat is being dressed, it becomes a question whether such a procedure as manure manufacturing or blood drying should be carried out inside abattoirs.

Periodic visits were made to the Middle Ward Hospitals by the District Meat Inspector, and advice given regarding the butcher meat supplied.

In addition to managing the piggery at Bellshill Abattoir, the District Meat Inspector also assisted in supervising the piggeries at Motherwell and Bellshill Hospitals, and in most cases had the fattened pigs turned into bacon for the use of the various Middle Ward Institutions.

In addition to the District Meat Inspector, John F. Smellie, Blantyre Abattoir; Alfred Nimmo, Larkhall Abattoir; George Prentice, Bellshill Abattoir; and Andrew Neil, Baillieston Abattoir, all qualified meat inspectors and approved by the Scottish Board of Health, have been appointed assistant meat inspectors and are, therefore, available for the general work of meat inspection throughout the Middle Ward in addition to their local duties. This, in conjunction with the Medical Officer of Health and his assistants, together with the assistance of the County Laboratory and the Bacteriologist there, puts the organisation of meat inspection in the Middle Ward on a sound and satisfactory basis.

Report of the Sanitary Inspector.

HOUSING.

The administrative procedure during the year 1923 under the Housing Acts, which was summarised in the information supplied to the Scottish Board of Health, in terms of Article 5 of the Board's Regulations, for the purpose of Section 17 (1) of the Housing and Town Planning, &c., Act, 1909, is given in the following tabular statement and subsequent paragraphs:—

Number of dwellings inspected, - - - - -	877
Number of houses found unfit for human habitation, -	97
Representations to Local Authority, - - - - -	1
Closing Orders made, - - - - -	1
Defects remedied without making Closing Orders, - -	3
Work completed, - - - - -	308
Work in progress, - - - - -	219
In negotiation, - - - - -	253

Insanitary Dwellings.

During the year the Department have still been pressing for the introduction of modern domestic and sanitary conveniences to existing dwellings. Numerous inspections were made, and meetings held with owners of properties, and, although difficulties have been experienced in view of the continued high cost of carrying out improvements, a considerable amount of progress has been made. The properties dealt with are briefly referred to as under:—

Priestfield Terrace, High Blantyre.—11 two-apartment, 2 three-apartment, and 1 four-apartment dwellings, referred to on page 133 of last Annual Report. After much pressure the Company submitted a plan showing the provision of an inside sink, water supply, and water-closet for each dwelling. The position of one of the water-closets was unsatisfactory, and, as the plan did not show the proposed drainage arrangements, it was returned to the Company for amendment. Difficulties were afterwards raised by the Company as to sewage disposal, and a meeting was held at the property with their local Manager, when the necessary drainage arrangements were fully explained. Letters to the Company pressing for proposals were not

even acknowledged, and only after the Committee had instructed the service of a notice under Section 246 of the Burgh Police (Scotland) Act, 1892, were matters finally adjusted. By this time winter weather had set in, and no building was possible before the end of the year.

151-155 *Main Street, High Blantyre*.—5 one-apartment and 3 two-apartment dwellings without an adequate water supply and water-closet accommodation, referred to on page 134 of last Annual Report, have not yet been finally dealt with.

38-46 *Broompark Road, Blantyre*.—A two-storey stone-built tenement property, with 16 occupancies, the only sanitary conveniences being two outside trough water-closets, referred to on page 134 of last Annual Report. The work of erecting seven new water-closets has been completed.

128-132 *Main Street, High Blantyre*. — 2 one-apartment, 2 two-apartment, and 1 three-apartment dwellings, also a shop presently used as a dwelling, with one water-closet for the six occupancies. After service of the statutory notice referred to on page 134 of last Annual Report, the Agents for the bondholders asked that, in view of financial circumstances, some delay should be given till May before the work was proceeded with. The Committee, by a majority, agreed to grant delay. One additional water-closet was afterwards provided, but this was not accepted as satisfactory, and the matter was still in hand at the close of the year.

6-12 *School Lane, High Blantyre*.—A two-storey tenement, comprising 3 one-apartment and 5 two-apartment dwellings without inside water supply, the slop water being emptied into the highway surface channel, and creating a nuisance, referred to on page 135 of last Annual Report. An inside sink and water supply have now been provided for each dwelling.

321-335 *Glasgow Road, Blantyre*.—A two-storey stone-built tenement comprising 8 one-apartment back-to-back dwellings, 2 two-apartment, and 2 three-apartment dwellings, with only two water-closets. The temporary arrangement agreed to by the Committee for the erection of four additional water-closets has been carried through.

87-95 *Stonefield Road, Blantyre*.—A two-storey stone-built property, comprising 12 one-apartment, 1 two-apartment, and 1 three-apartment dwellings. The existing sanitary conveniences were two water-closets situated against the back wall of the property for the use of the fourteen tenants. As no satisfaction could be obtained from

the owner, a notice was duly served upon him. Subsequently he stated that he had got no money out of the property for a considerable time, and further that the property suffered very much from underground workings, and suggested that the Department should meantime accept the provision of three additional water-closets. This offer, however, was quite inadequate, and negotiations were proceeding at the close of the year.

69-95 *Glasgow Road* and 2-22 *Auchenraith Road, Blantyre*.—1 one-apartment, 24 two-apartment, 9 three-apartment, and 7 shop dwellings and one shop. The three-apartment dwellings have each an inside water-closet, while the remaining 39 occupancies are served by seven water-closets situated under the stairs. Six of these closets are of the trough type. The question of improved accommodation has been discussed at the property with the owner, and proposals will be submitted for the approval of the Committee.

15-34 *Belmont Cottages, Blantyre*.—This is a single-storey brick-built row containing 19 one-apartment and 1 two-apartment dwellings, for which there were four water-closets, situated against the wash-houses and boundary wall of the feu, and one water-closet in the two-apartment dwelling. The matter was taken up with the owner, and, after some delay, nine new water-closets were provided, and three of the closets against the boundary wall abolished.

Long Row, Carnbroe.—20 two-apartment dwellings, referred to on page 136 of last Annual Report. The work of erecting a scullery fitted with sink, water supply, and a water-closet for each of these dwellings has now been completed.

Stable Row, Carnbroe.—15 two-apartment and 1 four-apartment dwellings. The Company have completed the erection of sculleries fitted with sinks and water supply, and an inside water-closet for the four-apartment dwelling and 14 of the two-apartment dwellings. The remaining two-apartment dwelling has not yet been provided for.

New Orbiston Rows, Bellshill.—The arrangement referred to on page 136 of last Annual Report, that the Company would complete the work of providing sculleries fitted with sink, inside water supply, and a water-closet at the dwellings still unprovided for before the end of the year, was not carried through, only 21 dwellings having been dealt with during the year, leaving a balance of 26 dwellings still to be provided for. The Company are being pressed to complete the work.

Hamilton Palace Colliery.—Further progress has been made in the provision of water-closet accommodation at these rows, referred to on page 136 of last Annual Report. The work at the following blocks of dwellings was completed:—Roman Place, 44 two-apartment dwellings; Park Place, 20 two-apartment dwellings; and Haugh Place, 28 two-apartment dwellings. Work was still in progress at Clyde Place, 48 two-apartment dwellings.

Parkhead Rows, Bellshill.—110 two-apartment and 2 four-apartment dwellings. On the completion of the 22 sculleries referred to on page 137 of last Annual Report the Company were asked to proceed with a further instalment of improvements. Plans were approved for other 24 sculleries, each fitted with sink, inside water supply, and a water-closet, and when these had been commenced the Company intimated that they had decided to proceed with 18 additional sculleries, and a month later asked consent for another 24 sculleries. The whole work was completed by September, and 10 large open middens, with 30 privies, have been abolished, dustbin accommodation being provided.

Douglas Park Square.—Referred to on page 137 of last Annual Report. No arrangements have yet been made by the Company for the introduction of improved domestic and sanitary conveniences.

Young's Land, Thorniewood.—3 one-apartment, 18 two-apartment, and 2 three-apartment dwellings, referred to on page 137 of last Annual Report. The work of providing inside sinks and water supply has been completed.

Bothwellpark Rows.—With regard to improved domestic and sanitary conveniences for these rows, referred to on page 137 of last Annual Report, and the desire of the Colliery Company to be allowed to proceed at once with the introduction of inside sinks and water supply, the whole question was carefully considered, and permission was given for the Company to proceed with the work. 101 dwellings had been dealt with before the close of the year. The question of water-closet accommodation has been left in abeyance meantime on account of the difficulties with regard to drainage outfall.

Calderbraes, Uddingston.—13 two-apartment dwellings, referred to on page 138 of last Annual Report. The work of providing water-closet accommodation at these dwellings has been completed.

24-26 Hamilton Road, Bellshill.—In the matter of insanitary conditions existing at this property, referred to on page 138 of last Annual Report, and the arrangement come to with the owners that

if any of the dwellings became vacant it would not again be re-let, other two dwellings became vacant during the year, and have accordingly been shut up.

Tannochside.—With regard to the proposed introduction of modern domestic and sanitary conveniences at the dwellings in Hozier Street, Laidlaw Street, and Russell Place, Tannochside, and the difficulty as to sewage outfall, referred to on page 138 of last Annual Report, the negotiations between the Company and the Local Authority were brought to a satisfactory conclusion, and the necessary outfall sewer was constructed. The Company submitted plans for (1) the provision of a water-closet and coal-cellar for each of the 40 two-apartment dwellings, numbered 49-87 and 50-88 Laidlaw Street—these dwellings already have sculleries with inside sinks and water supply; (2) the erection of a scullery, with inside sink and water supply, and a coal-cellar for each house, with a water-closet for every two houses at the 43 two-apartment dwellings numbered 30-44 and 46-73 Hozier Street; and (3) eight additional wash-houses to be provided between the two streets. The work has been completed.

Ettieshore Terrace, Bellshill.—10 two-apartment dwellings with insufficient water-closet accommodation, referred to on page 138 of last Annual Report. The owner has not yet completed this work.

Burnie Place, Bellshill.—9 one-apartment and 6 two-apartment dwellings, with only two water-closets for the 15 occupancies, referred to on page 139 of last Annual Report. The bondholders entered into possession of the property, and after some correspondence and a meeting on the ground it was arranged that five new water-closets would be provided at the property. The work has been completed.

Woodlands Place, Bellshill.—6 two-apartment dwellings with only one water-closet, referred to on page 139 of last Annual Report. The two new water-closets agreed upon have now been completed.

Turner's Buildings, Brewsterford.—3 one-apartment, 5 two-apartment, and 2 four-apartment dwellings. The five water-closets agreed upon and the introduction of inside sinks and water supply to the three one-apartment dwellings have been satisfactorily completed.

Wellpark Place, Carnbroe.—5 two-apartment dwellings, referred to on page 140 of last Annual Report. Two of the new water-closets have been erected. The third has not yet been commenced.

Clydeside Cottages, Uddingston.—1 one-apartment, 2 two-apartment and 1 three-apartment dwellings. The work of providing a water-closet for each dwelling has been completed.

Ashgrove Terrace, Bellshill.—The first instalment of six new water-closets, being part of the scheme for the provision of a water-closet for each dwelling, referred to on page 140 of last Annual Report, has been completed.

Oak Terrace, Bellshill.—The first instalment of six new water-closets, being part of the scheme for the provision of a water-closet for each dwelling, referred to on page 140 of last Annual Report, has been completed.

Bothwell Castle or Jubilee Square, Bothwell.—Two two-storey stone blocks, comprising 56 two-apartment houses, without inside sinks, modern water-closets, and drainage. After negotiations the Company provided a sink with water supply into the kitchen window of each dwelling, and 28 new water-closets—14 on the upper floor and 14 on the lower floor—thus giving water-closet accommodation in the proportion of one for every two tenants. The old trough closets, which were situated in the square at some distance from the dwellings, were swept away.

77-83 North Road, Bellshill.—The question of providing additional water-closet accommodation at this property, comprising 1 one-apartment, 6 two-apartment, and 5 three-apartment dwellings, was taken up with the owner, and after negotiations a plan was submitted showing a tower containing two water-closets, one for the two tenants upstairs, and one for a tenant on the ground floor. The work has now been completed.

63-69 Jerviston Street, New Stevenston.—A two-storey brick-built property, containing 6 two-apartment dwellings. The owner's attention was directed to the insufficient water-closet accommodation, there being only one water-closet for the use of all the tenants; also to the want of inside sinks and water supply in certain of the dwellings. The owner proposed erecting two additional water-closets, but gave no indication of what he would do in the way of introducing sinks and water supply. Negotiations were proceeding at the close of the year.

Broadlees, 'Chapelhall.—3 one-apartment and 2 two-apartment dwellings without a proper water supply. The Company were asked to provide an inside sink and water supply for each of the dwellings,

as the tenants have presently to carry water from a property some 400 yards distant. Negotiations were proceeding at the close of the year.

80-82 *High Street, Newarthill*.—2 two-apartment dwellings. Two inside sinks with water supply and a water-closet were provided at this property.

35-39 *High Street, Newarthill*.—3 two-apartment dwellings. An inside sink for each dwelling and two water-closets were provided here.

Newarthill.—Water-closet accommodation was provided during the year at the following properties :—226-228 Campsie Terrace, 2 three-apartment dwellings; 232 Campsie Terrace, 2 three-apartment dwellings; 9-11 High Street, 1 two-apartment and 1 three-apartment dwellings; 30-34 High Street, 2 one-apartment and 1 three-apartment dwellings; 31-33 High Street, 3 one-apartment dwellings; 41-47 High Street, 4 two-apartment dwellings; 68-74 High Street, 2 two-apartment and 1 three-apartment dwellings; 92-98 High Street, 2 two-apartment and 1 three-apartment dwellings; 98-100 High Street, 2 two-apartment dwellings; Mossview, Omoa, 4 two-apartment dwellings; Yett Farm, 1 four-apartment dwelling.

Willowbank, Mossend.—A modern two-storey tenement, comprising 2 two-apartment and 2 three-apartment dwellings, with only one water-closet. The owner provided an additional closet.

Burnside, Holytown.—1 one-apartment and 5 two-apartment dwellings. The owner of this property submitted a plan showing the provision of three additional water-closets, and these, along with the three already provided, give a separate convenience for each dwelling. The work is in progress.

Westburn Rows, Cambuslang*.—Nothing further has been done with regard to the provision of wash-house accommodation at the 84 one-apartment and 2 two-apartment dwellings referred to on page 140 of last Annual Report.

Clydesdale Rows, Wishaw.—3 one-apartment, 41 two-apartment, and 3 four-apartment dwellings, referred to on page 140 of last Annual Report as being kept wind and water tight until such time as the tenants can find other accommodation, are still all occupied.

Stane Place and Manse Road, Shotts.—Referred to on page 141 of last Annual Report. The work of providing enlarged sculleries fitted with inside sink, water supply, water-closet, washing boiler,

and a coal-cellar for each of the 24 two-apartment dwellings situated in Manse Road has been completed. The Company will now be pressed to proceed with improvements at Stane Place.

Lady's Row and Binnie's Row, Morningside.—These dwellings are referred to on page 141 of last Annual Report—(a) Lady's Row, 6 one-apartment and 2 two-apartment dwellings; and (b) Binnie's Row, 13 one-apartment and 4 two-apartment dwellings. No further progress has been made towards carrying out the mutual arrangement for the closure of these dwellings, as none of the tenants were removed during the year.

Mitchell Place, Morningside.—29 two-apartment dwellings, and *School Row, Chapel*, 6 two-apartment dwellings, referred to on page 141 of last Annual Report. No progress has been made with the provision of modern sanitary conveniences at these dwellings on account of difficulties with regard to sewage disposal.

Chapel Square, Morningside.—19 one-apartment and 5 two-apartment dwellings, referred to on page 141 of last Annual Report. These dwellings are still occupied.

Bowhousebog, Hartwood.—The introduction of a proper drainage scheme and water-closet accommodation for the forty-two dwellings forming the village of Bowhousebog or Liquo, referred to on page 142 of last Annual Report, was agreed upon by the Lanark District Board of Control, and the necessary works for the disposal of sewage have been completed. Plans for the water-closet accommodation were under discussion at the close of the year.

Millar's Land, Waterloo.—A two-storey property, comprising 4 two-apartment and 1 four-apartment dwellings. The conveniences at this property consisted of a privy midden, one wooden wash-house, a stand well placed against the back wall of the property, and a coal-cellar for each house. After negotiations the owner submitted a plan showing the provision of three new water-closets, and the introduction of an inside sink and water supply to each dwelling. The work was duly carried out.

Quarryknowe, Overtown.—2 two-apartment dwellings. The owner provided an inside sink and water supply for each dwelling, and one water-closet.

Meadowhill Rows, Larkhall.—The 92 one-apartment and 29 two-apartment dwellings, mostly back-to-back, referred to on page 142 of last Annual Report, continued to receive regular inspection.

Numerous intimations and notices were served on the owner during the year on account of choked water-closets, leaking roofs, &c., and only thus has the improvement of the general sanitary condition of the rows been maintained.

Low Shawsburn.—10 two-apartment dwellings, referred to on page 142 of last Annual Report. Nothing further has been done to complete the improvements at this property, and the Committee will be asked to serve a statutory notice.

119 Union Street, and 1-5 Muir Street, Larkhall.—A two-storey block of 2 one-apartment and 4 two-apartment dwellings and a shop, also three old single-storey dwellings. After service of the statutory notice, the owner's Agents put forward a proposal to provide two new water-closets in addition to the existing closets at the property, and to introduce water into the houses at Union Street, on condition that the Committee did not insist on the introduction of water to the single-apartment houses in Muir Street, which the owner proposes, in view of their insanitary condition, to close up as soon as the tenants can find other accommodation. The Committee agreed to accept these proposals meantime as a temporary arrangement, without prejudice to the Local Authority's right to call for additional conveniences in the future if considered necessary.

Cornsillock Rows, Dalserf.—60 two-apartment dwellings, referred to on page 143 of last Annual Report, without proper water supply and water-closet accommodation. These dwellings have now been sold to the new mineral tenants, and the need for improved conveniences has been taken up with them.

Swinhill Terrace, Dalserf.—A single-storey brick row, comprising 49 two-apartment, 2 three-apartment, and 1 four-apartment dwellings. These dwellings already have inside sinks and water supply, and the three and four-apartment dwellings have each a water-closet. The conveniences for the 49 two-apartment houses are of the privy midden type, and at times give rise to nuisance conditions. The matter was taken up with the Company, who stated that the Colliery was practically exhausted, and would only last, at the utmost, from three to four years, and that they could not undertake to provide modern sanitary conveniences at present, but would keep the existing conveniences in a good state of repair. Later they stated that the introduction of water-closets could not be considered, as subsidence would take place from mineral workings for the next six or nine months. The matter was reported to the Committee, who agreed in the circumstances the matter should be delayed until next year.

South Netherburn Farm Cottages, Netherburn.—Two cottages, situated about 200 yards from the main road, comprising 1 one-apartment and 1 two-apartment dwellings. Certain repairs were being carried out at this property, and, as there was no water supply available, the water supply for domestic purposes having to be carried from a farm 300 yards distant, the owners were requested to introduce gravitation water and an inside sink for each house. They, however, considered that the rental of the property did not warrant such expenditure, but were willing to erect a stand well between the houses. The matter was put before the Committee, who, after consideration, agreed that they should offer no objection to the proposal of the factor that a water supply laid on to a stand pipe to be situated between the doors of the two cottages should be provided, on the understanding that such provision was not to prejudice the Committee in calling for further improvements at a later date if considered expedient. The work was duly carried out.

Ayr Road Rows, Dalserf.—The question of providing water-closet accommodation, inside sinks and water supply for the 40 two-apartment dwellings at this property was taken up with the Company, whose lease, however, has terminated. The subjects have been taken over by another Colliery Company, and negotiations are proceeding.

Larkhall.—Water-closet accommodation has been provided during the year at the following properties:—96 Wellgate Street, 4 one-apartment dwellings; 99 and 101 Wellgate Street, 3 one-apartment and 2 two-apartment dwellings; 112 Wellgate Street, 2 one-apartment and 7 two-apartment dwellings; 1 Miller Street, 1 three-apartment dwelling; 67 Miller Street, 1 two-apartment dwelling; 25 John Street, 1 two-apartment dwelling; 40 Machan Road, 1 three-apartment dwelling; 50-62 Machan Road, 4 one-apartment dwellings; Strutherhill, 1 three-apartment dwelling; 5-9 Strutherhill, 3 two-apartment dwellings; 97 Raploch Street, 1 one-apartment dwelling; 148 Raploch Street, 1 two-apartment dwelling; Highlees Farm, 1 four-apartment dwelling; Cumnock Cottage, 1 three-apartment dwelling; Rosebank Cottage, 2 three-apartment dwellings; 75 Union Street, 1 two-apartment dwelling; 19-21 Claude Street, 2 one-apartment dwellings; 9 and 11 Hamilton Street, 3 two-apartment dwellings; and 7-13 Montgomery Place, 4 two-apartment dwellings.

7-9 M'Neill Street, Larkhall.—2 two-apartment dwellings, referred to on page 144 of last Annual Report.—Negotiations are still proceeding with a view to the provision of water-closet accommodation.

Udston Rows, Hamilton.—There have been no further developments with regard to the proposed acquisition of this property by the Committee for the reconstruction scheme referred to on page 144 of last Annual Report.

Home Farm Rows, Hamilton.—10 two-apartment and 1 four-apartment dwellings. The existing water supply is got from one stand well about the middle of the row, and the slop water is got rid of by means of six open jawboxes on the opposite side of the road of access to the dwellings. Behind the dwellings there are two blocks, each containing a privy and midden. The question of providing proper domestic and sanitary conveniences was taken up with the Company, who afterwards submitted plans showing proposed new sculleries fitted with inside sink, water supply, washing boiler, water-closet, and coal-cellar for each dwelling. The plans were approved of, and the work is being proceeded with.

Eddlewood Rows, Hamilton.—24 one-apartment, 153 two-apartment, 12 three-apartment, and 2 four-apartment dwellings. Each dwelling is provided with an inside sink and water supply, and there are 31 wash-houses for the use of the tenants. As the existing 47 privies and 12 middens were most unsatisfactory, the Company were asked to consider the question of the provision of modern sanitary conveniences. After negotiations, plans were submitted showing proposed new water-closet accommodation. The proposals may be summarised as follows:—

Blocks Nos. 1, 2, 3, and 7 are of two storeys, comprising 136 two-apartment, 6 three-apartment, and 1 four-apartment dwellings. Each dwelling on the ground floor is to be provided with a separate water-closet in a small porch which will be built at each front door. The four-apartment dwelling on the upper floor at the north end of Block No. 1 is to be provided with a water-closet on the stair landing, and all the other upper-floor dwellings are to be provided with water-closets at the stair landings in the proportion of one water-closet for every two houses.

Blocks Nos. 4 and 5 are of single storey, and comprise 10 two-apartment dwellings. Each dwelling is to be provided with a water-closet in a small porch to be built at the front door.

Block No. 6 is a two-storey tenement, comprising 24 back-to-back single-apartment dwellings on the ground floor, 6 two-apartment and 6 three-apartment dwellings on the upper floor. The front ground-floor dwellings are each to be provided with a water-closet in a small

porch to be built at the front door, while the closet accommodation for the back ground-floor dwellings and the upper-floor dwellings is to be built in towers at the stair landings, in the proportion of one water-closet for every two dwellings. The plans were approved, and the work is now in progress.

Watson Place, Eddlewood.—This is a two-storey stone-built tenement property, comprising 3 shops on the ground floor and 3 two-apartment dwellings upstairs, access to which is by an outside stair and landing. There are two privies and a midden. Each house is fitted with an inside sink and water supply. The owner was called upon to provide a water-closet for each dwelling, and after some delay the factor stated that the owner, who is abroad, was being communicated with for instructions. Negotiations were proceeding at the close of the year.

9-15 *Kittoch Street, East Kilbride.*—A two-storey tenement, comprising 4 one-apartment and 2 two-apartment dwellings. The existing accommodation consists of a privy midden situated at the head of the garden. The matter of introducing water-closet accommodation to the property was taken up with the owner, but without success, and a notice was served under Section 246 of the Burgh Police (Scotland) Act, 1892. Subsequently one water-closet was erected, but as this did not meet the requirements of the Local Authority the matter was again taken up. Negotiations were proceeding at the close of the year.

Meikle Drumgray, Airdrie.—No decision has been arrived at as to the provision of sinks, water supply, and water-closet accommodation for the 20 two-apartment houses referred to on page 144 of last Annual Report, as most of the collieries in the neighbourhood have been shut up.

Beech Row, Kirkwood.—The 6 two-apartment dwellings in an uninhabitable condition, referred to on page 144 of the last Annual Report, are still occupied.

Boghall Square, Broomhouse.—With reference to the paragraph on page 145 of last Annual Report, and the action being taken by the Committee to enforce the provision of water-closets and additional wash-house accommodation for the 30 one-apartment and 16 two-apartment dwellings known as Boghall Square, a Sub-Committee had a meeting at the property with the local Manager and the Architect to the Colliery Company. After inspection and discussion, the Company's representatives stated that they were prepared to proceed

forthwith with the provision of water-closets for the 16 dwellings fronting Hamilton Road, in the proportion of one water-closet for every two houses. With regard to the other 30 dwellings entering from Baillieston Road, the Company's representative suggested that in lieu of providing conveniences for these houses, which were considered unsatisfactory, the Company might be disposed to erect alternative accommodation and clear the existing houses away. The Company's proposals would, however, be submitted within the next fortnight. The work at Hamilton Road was not proceeded with, nor did the Company submit the promised proposals with regard to the other dwellings, and intimation was made to the Company that proceedings would be instituted in Court. The work at Hamilton Road was thereafter commenced, but the Company stated that the position of their operations at Daldowie Colliery was such as to prevent their undertaking any repairs to the 30 dwellings entering from Baillieston Road, as movement was still taking place, and they considered it futile to do anything until this had ceased; also that the question of erecting new houses was receiving consideration, but until the Company saw how the Colliery was to develop they could not come to a definite decision. The Committee intimated to the Company that it was essential that some temporary conveniences should meantime be provided for the 30 dwellings in question. Plans were thereafter submitted for the erection of four temporary trough closets of the Lascar pattern, which was simply an earthenware platt fixed at the floor level, with a hole in it through which the discharges passed into the trough below. Objection was taken to the type of closet and number offered, the Committee agreeing to insist upon the provision of at least seven water-closets of the pedestal type. The Company had perforce to accept this decision, and the closets for the whole property have since been completed. The question of water-closet accommodation for the property was taken up with the former Colliery Company so long ago as September, 1915, and has only now been brought to a conclusion.

Calderbank.—No further progress has been made in the matter of improved sanitary conveniences for the dwellings at Old Square and New Square, referred to on page 145 of last Annual Report.

Crosshill and 1-11 Gillies Lane.—The work of providing water-closet accommodation for the corner property at 29-33 Crosshill and 1-11 Gillies Lane, comprising 8 one-apartment and 1 three-apartment dwellings referred to on page 145 of last Annual Report, has now been completed,

Gillies Lane and Crosshill, Baillieston.—5 one-apartment and 4 two-apartment dwellings at 2-12 Gillies Lane, and 35-39 Crosshill; and 10 two-apartment and 1 four-apartment dwellings at 18A-E Crosshill and 22-28 Gillies Lane, referred to on page 145 of last Annual Report. The work of providing water-closet accommodation has now been completed.

31-43 *Muirside, Baillieston.*—6 two-apartment dwellings, referred to on page 145 of last Annual Report. The owners submitted a note of proposed repairs and improvements, with a view to restoring the dwellings to a reasonably habitable condition. These repairs included a general overhaul of the dwellings, the provision of an inside sink and water supply for each dwelling, a water-closet for every two dwellings, a wash-house fitted with water supply, and the re-grading of the surroundings. The whole work has been carried out in a satisfactory manner.

35-49 *Burnside, Baillieston.*—2 one-apartment and 7 two-apartment dwellings, referred to on page 146 of last Annual Report. In respect that the proprietrix upon whom the statutory notice for the provision of water supply, sinks, and water-closets was served was now dead, a new notice was served upon her Trustees. An appeal to the Sheriff was lodged against this notice, the principal averment being that there was “no convenient or practicable means of drainage within 100 yards of any part of said dwelling-houses.” The Sheriff issued an interlocutor dismissing the appeal in the following terms:—

AIRDRIE, 3rd July, 1923.—The Sheriff-Substitute, having heard parties’ procurators, sustains the first plea in law for the Respondents, except as regards the averments made by the Appellant in Article 4 of the Note of Appeal: *Quoad* said averments and the answers thereto allows parties a proof, said proof to proceed on a day to be afterwards fixed.

D. S. MACDIARMID.

Note.—This is an appeal by the Trustees acting under the Trust Disposition and Settlement of the late Mrs. Dick against a notice by the District Committee of the Middle Ward by virtue of the powers conferred on them by the Burgh Police Acts, 1892 and 1903, and the Lanarkshire County Council (Water, &c.) Order Confirmation Act, 1917, requiring the introduction of water, water-closets, &c., into certain houses owned by the Trust.

It is urged against the notice in the first place that it is invalid in respect that it has not been served on the “owner.” It would appear that a doubt exists as to the person or persons ultimately entitled to this property. That, however, does not seem to me to invalidate this notice, which has been served on the Trustees of the

late Mrs. Catherine Dick, who, it seems to me, without doubt, are the "owner" in the sense of the Acts. Nor do I think that it can be said that the Trustee is a factor in the sense of the Acts. Trustees are, I think, in the same position, so far as these Acts are concerned, as ordinary owners (Burgh Police (Scotland) Acts, 1892, Section 4 (22), and 1903, Section 58; Lanarkshire County Council Act, 1917, Section 5; M'Dougall's Trustees, 1921, S.C. 3).

The other objections taken are, with one exception, really urged on the ground of the expense which is likely to be incurred in carrying out the terms of the notice. In M'Dougall's Trustees it was doubted whether financial considerations were a relevant ground of appeal under Section 246 of the Act of 1892, and it was held in that case on financial averments, which would seem to be at least as strong as these made here, that a relevant ground for interference by the Court had not been set forth. It is no doubt true, as was argued by the Agent for the Appellant, that the section of the County Council's Act of 1917 dealing with appeals contains words which may be held to be wider than those used in Section 246, but it seems to me that the same considerations apply, and that in an appeal under Section 68 (2) of the Act of 1917, pointed averments would have to be made in order to entitle to an inquiry in the words of the Lord Justice Clerk in M'Dougall's Trustees "intended to set aside an administrative act of the statutory body to whom the sanitary interests of the community have been entrusted." These averments are not, in my opinion, made here.

It would, however, appear that a doubt exists as to whether or not there is a means of drainage here available. The Appellant avers that the appropriate sewer has not been made deep enough, and that to the other sewer suggested by the Respondents there is no means of access except through ground which does not belong to the Trust. I do not know whether or not any objection has been raised by the owner of that ground to the making of a drain through it to join up with the sewer in question, and I reserve my opinion. no adequate argument having been addressed to me on the point, as to whether or not, assuming that the owner in question had no objection, the Trustee would be bound in law to make the connection. Before, however, that question arises the Court must be in possession of the true facts, and therefore it is necessary that there should be an inquiry into the averments made by the Appellant in Article 4 of his note, and the answers made thereto by the Respondents. It may be possible for the Appellant and Respondents to agree upon the facts. If so, so much the better.

D. S. M.

With regard to the suggestion of the Sheriff that parties might "agree upon the facts" as to the means of drainage available for the property, an endeavour was made to adjust a statement of facts with the Appellant, but without success. When the case was again before the Committee it was explained that, while there was a sewer in the public road adjoining the property, a portion of the dwellings

were at too low a level to drain into this sewer, but there was another sewer about forty yards to the east of the property, to which a connection had been offered. This latter connection would involve the laying of a connecting drain through intervening ground belonging to other proprietors who were willing to grant the way-leave for the purpose, but the Appellant declined to be at the expense of laying this drain—estimated at £65—and maintained that the Local Authority were bound to lay it. The Committee agreed that they could not entertain the proposal that the connecting drain between the houses and the sewer should be laid at the expense of the Local Authority, but offered to make their statutory powers for the laying of same available to Appellant in the event of any difficulty arising as to obtaining way-leave, but on the distinct understanding that the whole cost should be borne by the Appellant. The matter is still *sub judice*.

8-38 *Camp Road, Baillieston*.—16 two-apartment dwellings, referred to on page 146 of last Annual Report. In view of the statement of the proprietrix that she had no funds to carry out the improvements asked for, a Sub-Committee inspected the property and met the proprietrix, who said that she had endeavoured unsuccessfully to sell the property. After full discussion, the Sub-Committee agreed to recommend that, without prejudice, the proprietrix be requested to proceed with four water-closets this year and four further closets next year, making eight closets in all for the 16 tenants. The proprietrix failed to carry out this request, and further proceedings were taken in Court. The case is still *sub judice*.

42-50D *Hamilton Road, Broomhouse*.—6 two-apartment and 1 three-apartment dwellings, referred to on page 146 of last Annual Report. The work of providing four water-closets has been satisfactorily completed.

Rhindsmuir Farm Cottages, Baillieston.—2 two-apartment dwellings. The owner has provided a water-closet for each house.

Bargeddie Square, Bargeddie.—6 two-apartment dwellings. The Agents for the owner submitted a plan showing the proposed conversion of two existing privies into two water-closets, but, as this did not meet with the requirements of the Local Authority, the Agents were asked to reconsider the matter. Later the Agents stated that they were unable to make any alternative suggestion, as, owing to the cost involved, and to the fact that the property showed a loss, they would rather recommend that the houses be dismantled. The matter is still in negotiation.

Garret Row, Shotts.—12 one-apartment back-to-back dwellings, and 6 one-apartment attic dwellings, referred to on page 147 of last Annual Report. No decision has been arrived at with regard to the reconstruction proposals and the introduction of modern sanitary conveniences.

Shotts.—With regard to the need for modern sanitary conveniences at certain dwellings owned by the Shotts Iron Company, Limited, referred to on page 147 of last Annual Report, after some pressure, plans were submitted by the Company showing the provision of a scullery fitted with sink, washing-tub, water supply, water-closet, washing boiler, and coal-cellar for each of the 64 two-apartment dwellings known as Jordan Terrace, Shotts. These plans were approved of, and the work has been satisfactorily completed. The Company will be asked to continue the good work at their other properties.

56-78 Station Road, Shotts.—12 two-apartment dwellings, referred to on page 150 of last Annual Report. The six water-closets agreed to be accepted as a temporary arrangement at this property have been completed.

67-97 Station Road, Shotts.—16 two-apartment dwellings, with sculleries, inside sinks, and water supply, but still having privy middens, referred to on page 150 of last Annual Report. The owner submitted a plan showing the erection of eight new water-closets, which would give one water-closet for every two tenants, and the Committee accepted these meantime as a temporary arrangement. The work has been completed.

84-88 Shotts Kirk Road, Shotts.—This is a single-storey stone-built property, comprising 3 two-apartment dwellings. The existing accommodation is an old wood privy situated at the rear of the premises. The owner has been asked to provide an inside sink, with water supply, and a water-closet for each dwelling. The matter is still in hand.

Victoria and Albert Streets, Harthill.—120 two-apartment dwellings, referred to on page 148 of last Annual Report. The work of providing an inside sink and water supply for each dwelling, with a water-closet for every two dwellings, has been satisfactorily completed. The owner is further in course of laying granolithic pavements and otherwise improving the surroundings of the dwellings.

Meadowbank, Harthill.—1 one-apartment, 12 two-apartment, and 1 three-apartment dwellings. Proposals were put forward by the Colliery Company's representatives for the provision of a water-

closet for every dwelling, these closets to be erected in one block all in a row in the back court. It was pointed out to them that closets in such a position could not now be accepted by the Department. The whole question was fully discussed at a meeting on the ground, as also the practicability of providing some of the dwellings with sculleries. Plans were afterwards approved for the provision of water-closets in the proportion of one water-closet for every two dwellings, to be erected as close to the doors of the dwellings as structural arrangements would permit. The work has been completed.

West Benhar.—8 one-apartment and 147 two-apartment dwellings, referred to on page 148 of last Annual Report. In view of the circumstances still prevailing in the neighbourhood with regard to housing accommodation, it was found expedient to make a joint application to the Sheriff to extend for another year the date fixed by him for the closing of these houses.

Russell's Land, Cleland.—8 one-apartment, 2 two-apartment, and 2 three-apartment dwellings, referred to on page 148 of last Annual Report. It was reported to the Committee that the owner had not yet provided the two additional water-closets which the Committee had decided was the minimum provision which could be accepted, and instructions were given that the matter should again be taken up with the owner, with authority to proceed, if necessary, with the action which had already been raised in Court. Further representations were made by the owner urging that the four water-closets which had already been provided should be accepted as sufficient meantime, in view of the fact that he intended, at the earliest possible moment, to convert the single-apartment dwellings into houses of two apartments, and that thereafter the water-closet accommodation at the property would be in the proportion of one water-closet for every two tenants. The Committee, after consideration, agreed, without prejudice, that the suggestion of the owner should be accepted meantime, on condition that he undertook to convert the single apartment houses within the next twelve months.

19-23 *Omoa Road, Cleland.*—6 one-apartment and 1 two-apartment dwellings, referred to on page 149 of last Annual Report. Following on the service of the statutory notice, the owner's law agent asked for a meeting at the property, when proposals were put forward for the conversion into water-closets of three coal-cellar. It was pointed out to him that the Committee were against the erection of water-closets in blocks in back courts, and where these could not

be provided inside the dwellings they must be as near thereto as possible. Other positions for the water-closets were suggested by the law agent, and a plan was afterwards approved by the Committee showing the provision of four closets along the back wall of the houses, and the introduction of inside sinks and water supply to six of the dwellings not already provided for. The work has been completed.

29-31 *Omoa Road, Cleland*.—5 one-apartment dwellings and a shop without proper water supply and water-closet accommodation, referred to on page 149 of last Annual Report. A communication was sent to the owner of the property, who was resident in America, but no reply was received. In the meantime the local factor, on his own responsibility, erected one water-closet for the use of the five tenants. This was not accepted as complying with the Committee's requirements, and the matter is still in hand.

28-32 and 34-38 *Main Street, Cleland*.—28-32 Main Street, Cleland—2 shops and 3 dwellings without inside sinks and water supply, and having an old wooden privy; 34-38 Main Street, Cleland, comprising 11 dwellings, without inside sinks and water supply, and having only two water-closets, referred to on page 149 of last Annual Report. After service of the statutory notice the owner's Agent stated that there were no funds in the estate to carry out the improvements required, and asked that delay be granted until the spring, in order to enable the sale of the property being carried through. The Committee were advised that the conditions at the property were such that further delay was inadvisable, and that immediate remedial measures should be pressed for. The portion of the property numbered 28-32 has since been sold, and the new owner has provided water supply and water-closet accommodation. With regard to the portion numbered 34-38, no steps having been taken to comply with the requirements of the statutory notice, proceedings were taken in Court, and the Sheriff imposed a fine of £5, or ten days' imprisonment. The matter was still in hand at the close of the year.

Croftview Cottage, Cleland.—2 two-apartment and 1 three-apartment dwellings, referred to on page 150 of last Annual Report. The work of providing a water-closet in the scullery of each dwelling has been completed.

65-67 *Main Street, Cleland*.—3 one-apartment and 4 two-apartment dwellings, referred to on page 150 of last Annual Report. After the Court procedure, overtures were made by the owner for

the erection of three water-closets, but no satisfactory proposals were put forward for the approval of the Committee. The owner, who is an Italian, sold the property to another Italian, who proceeded to erect two water-closets, but as these were inadequate, a fresh notice was served on him towards the close of the year.

53-55 *Omoa Road, Cleland*.—2 two-apartment dwellings, each with sink and water supply, referred to on page 150 of last Annual Report. No arrangement having been come to with the owner, a statutory notice for the provision of water-closet accommodation was served, and, as nothing was done, proceedings were taken in Court.

50-62 *Omoa Road, Cleland*.—12 one-apartment dwellings. Negotiations are proceeding for the provision of inside sinks and water supply for each dwelling.

Scott's Land, Omoa Road, Cleland.—12 one-apartment and 4 two-apartment dwellings. The property is without proper sanitary conveniences and water supply, and all the dwellings are, more or less, in an uninhabitable condition on account of leaking roofs, dampness of walls, broken floors, broken plaster work, and broken rhones and conductors. The requirements of the Local Authority with regard to the provision of proper domestic and sanitary conveniences were communicated to the proprietrix, but at the end of the year no definite proposals had been put forward by her.

122-136 and 137-148 *Omoa Road, Cleland*.—7 one-apartment and 11 two-apartment dwellings. The existing privy midden accommodation is in a ruinous and filthy condition, and the dwellings are without an inside water supply. The rhones and conductors are in a dilapidated condition. The owners have been asked to provide an inside sink and water supply and a water-closet for each dwelling. Negotiations were proceeding at the close of the year.

30 *Omoa Road, Cleland*.—A single-storey two-apartment cottage, referred to on page 150 of last Annual Report. This property changed hands during the year, and the new proprietor submitted plans to the Buildings Inspector for the reconstruction of the property, including the addition of a house of three apartments. The dwelling above referred to is now fitted and used as a shop.

Cleland.—Water-closet accommodation has now been provided at the following properties:—36-42 *Bellside Road*—4 two-apartment dwellings; *Elmbank Cottage*—1 two-apartment dwelling; and 13-17 *Omoa Road*—4 one-apartment and 1 two-apartment dwellings.

18-22 *New Street, Stonehouse*.—2 two-apartment dwellings. After considerable delay, the owner provided a water-closet at the property.

29-31 *King Street, Stonehouse*.—2 two-apartment and 1 three-apartment dwellings. The existing arrangements are two privies discharging into an open midden in close proximity to a bakehouse, and had been the cause of complaint. The matter was taken up with the Agents for the Trustees with a view to the introduction of water-closet accommodation for the dwellings, as well as to the shop and bakehouse, and negotiations were proceeding at the close of the year.

64 *King Street, Stonehouse*, 2 one-apartment dwellings; 67-69 *King Street, Stonehouse*, 2 one-apartment dwellings; 45-47 *Camnethan Street, Stonehouse*, 2 one-apartment dwellings.—The owners of these properties were requested to provide water-closet accommodation, and the matter is in hand.

UNSATISFACTORY HOUSING CONDITIONS.—The overcrowded conditions under which numerous families are compelled to live in many parts of the Middle Ward Area are appalling, and a few typical cases found on recent inspections might be quoted. In *Blantyre* two families were found occupying a single-apartment dwelling, the occupants being seven over 10 years of age and five under 10 years, or 12 in all. In a second single apartment 11 persons were found, namely, husband and wife and nine of a family—male, 23; female, 21; female, 18; male, 15; female, 13; female, 10; female, 6; female, 4; male, 2. In the third single apartment were two families, comprising 10 persons—four over 10 years and six under 10 years. In *Bellshill* the inmates of a single apartment were nine persons—five over 10 years and four under 10 years. *West Marystone*—in a single apartment were 11 persons, six over 10 years and five under 10 years. *Baillieston*—a single apartment, 10 persons, seven over 10 years and three under 10 years. *Carmyle*—a single-apartment, 10 persons, six over 10 years and four under 10 years. These cases can only indicate the *nature* of the overcrowding, which, I regret to say, is common throughout the Middle Ward Area, and must have a deteriorating effect on the moral and physical condition of the people. The full *extent* of this overcrowding is not definitely known, but when we consider that the census returns for 1921 showed that the percentage of one-apartment dwellings was in Blantyre, 30·4; Dalserf, 29·9; and Stonehouse, 28·1, and that in the interval there has, in addition to the natural increase of the population, been a

large influx of people from other areas, we realise that it is a most serious problem. The erection of over 3,000 dwellings by the Local Authority has not relieved congestion to any appreciable extent, and, as the natural increase of population at present requires the provision of 500 new houses per annum, at the present rate of progress many years must elapse before adequate housing accommodation is provided in the Middle Ward. Meantime, sub-letting of rooms prevails all over the district, even in the new Housing Schemes. In one scheme of 278 houses there are about 70 sub-lets.

INSANITARY AREAS.—With regard to the scheme for dealing with 2,644 insanitary dwellings in the Middle Ward area, referred to on page 151 of last Annual Report, intimation was received from the Scottish Board of Health that the Board were prepared to make an annual contribution of £4,000 towards meeting the annual loss on the scheme, and enquiring whether the Local Authority were prepared to proceed with their proposals on the basis of that assistance being given, and, if not, to what extent the Local Authority proposed to carry out the scheme. The Committee, having considered the whole situation and the effect on the local rates of an equivalent contribution of £4,000 by the Local Authority, agreed that meantime a scheme be formulated for further consideration, showing the provision of from 400 to 600 houses within the next two years, the various districts in the Middle Ward to be dealt with according to the degree of urgency therein for the clearance of slum property. A list of 971 dwellings in urgent need of demolition was afterwards submitted, and the Committee were asked to note that the great majority of the tenants who occupy these dwellings were unable to meet a rent of more than £14 per annum, so that houses of two apartments, with all modern sanitary conveniences, were the most that could be aimed at.

The Committee agreed that a modified scheme for dealing with approximately 500 houses should be submitted to the Scottish Board of Health for their approval. Before this scheme was submitted another communication was received from the Board, intimating an increase in the grant from £4,000 to £5,000, and the Committee, having reviewed their former proposals in the light of the proposed increased grant, approved of an amended scheme for the provision of 610 houses. This scheme was afterwards approved by the Board.

It is most disappointing to Public Health Officials, who are in daily contact with the dwellers in the slum areas, and are fully conversant with the horrible insanitary conditions under which these

people have to exist, to find another summer slipping past and not a single brick laid towards the erection of new dwellings. The urgent need for these dwellings to replace existing hovels is admitted by the Local Authority, the Board of Health, and the Government, but not a single house has yet been provided, and the occupants of the hovels are doomed to spend another winter of misery.

CONVERSION OF DWELLINGS.—In connection with the proposal to convert a two-apartment and a one-apartment dwelling into a tea-room, the Committee had under consideration the powers which they formerly had under the Housing (Additional Powers) Act, 1919, which expired in December, 1921, to prohibit the demolition of or use otherwise than as a dwelling-house of any house which, in the opinion of the Local Authority, was fit for human habitation. It was agreed that a representation be made to the Government Department concerned that, in view of the shortage of accommodation still prevailing, the powers formerly vested in Local Authorities should be renewed.

BUSBY.—The Committee had before them a communication from the Busby and District Ratepayers' Committee with regard to housing conditions, and stating that houses for the working classes were required at Busby. A report on the 76 workmen's dwellings situated in the Lanarkshire portion of the village was duly submitted, which showed that these were in good order, with the exception of two old properties, comprising 8 dwellings. Temporary remedial measures were being taken with regard to these, and when times are more favourable they will be dealt with by Closing Order. Intimation was made to the Ratepayers' Committee that, while the housing conditions in the Busby district would at all times receive careful consideration, it was not the intention of the Committee meantime to erect any houses in that area.

CLOSING ORDER.—Owing to the grossly insanitary condition of four dwellings known as Cock-ma-lane, Salsburgh, accommodation was found for the tenants in the new Housing Scheme, and the owner of the insanitary property was asked to give an undertaking that the houses vacated would not again be re-let as dwellings. As no satisfactory assurance was given, a representation was submitted under the Housing of the Working Classes Acts, 1890-1909, and a Closing Order was made by the Local Authority. The dwellings have since been demolished.

RENT AND MORTGAGE INTEREST (RESTRICTIONS) ACTS, 1920 AND 1923.—137 applications for certificates were received during the year.

In every instance a careful inspection of the premises was made, and a report submitted for the consideration of the Committee. The certificates granted by the Committee numbered 98, including the applications continued from the previous year; 37 were refused; and two were under consideration at the close of the year.

Intimation was sent to the owner of each dwelling giving details of the defects found, and in many instances repairs were immediately executed or the increased rent was suspended.

The following table shows the number of certificates granted since the commencement of the Act, and the cases in which repairs were executed:—

Parish.			Number of Certificates Granted.	Houses in which Repairs have been Executed.	Number still being dealt with.
Avondale,	...	...	7	6	1
East Kilbride,	...	...	5	5	—
Glasford,	...	...	3	2	1
Stonehouse,	...	...	12	10	2
Blantyre,	...	...	194	156	38
Bothwell,	...	...	293	194	99
Cambuslang,	...	...	149	102	47
Cambusnethan,	...	...	29	21	8
Dalserf,	...	...	258	224	34
Dalziel,	...	...	1	1	—
Hamilton,	...	...	38	21	17
New Monkland,	...	...	62	44	18
Old Monkland,	...	...	505	362	143
Shotts,	...	...	257	211	46
Total,	...		1,813	1,359	454

SUSPENSION OF RENT INCREASES.—The Committee considered as to action being taken by the Local Authority for the suspension of increases of rent in certain cases, and a statement was prepared by the Department and submitted, showing the number of certificates which had been granted under the Act, and the repairs executed, as well as a note giving full particulars of typical cases where repairs had not been carried out, and on which action might be taken. The matter was continued for further consideration.

Ruinous Buildings.

The following ruinous or dangerous buildings were dealt with during the year, in terms of Section 191 of the Burgh Police (Scotland) Act, 1892, as applied to the County by Section 10 (2) of the Local Government (Scotland) Act, 1908 :—

Blantyre.—A two-storey tenement at Dalziel Place, Springwells, comprising 5 one-apartment and 2 two-apartment dwellings, was found to be in a very dangerous condition, the front wall and a concrete roof being in a state of collapse. Notices were served on the owner and tenants, but, as the requirements of same were not complied with, Court proceedings were instituted, and the Sheriff granted an Order for the houses to be vacated. Five of the tenants found accommodation elsewhere, but two remained on the premises, and were ultimately evicted by a Sheriff Officer, temporary accommodation being provided for them in the Committee's Housing Scheme at Auchenraith.

The property at 43 Auchenraith Road, referred to in last Annual Report, page 153, was again dealt with owing to further damage to the front wall through mineral workings. After notices had been served, the tenants of both flats were removed therefrom, as the staircase and stairs were in a very unstable condition. The dwellings still remain vacant, and no attempt has been made to reconstruct the property.

The three-storey property at 45 Auchenraith Road, also referred to on page 153 of last Annual Report, was again reported as being in a dangerous condition, owing to the collapse of the front wall affecting two storeys, happily without accident. Notices were served, and three tenants were asked to vacate their houses while repairs were executed. Repairs were put in hand immediately, and all the houses are again occupied.

Newarthill.—An unoccupied dwelling at 139 High Street, Newarthill, was found to be in a ruinous and dangerous condition. After service of a notice the owner had the roof taken off and the gable and chimney-head brought down to the level of the wall-head.

Cambuslang.—A semi-detached dwelling at 26 Wellside Drive was found to be in a dangerous condition, and after service of a notice the tenant procured other accommodation.

Longriggend.—An old dilapidated stable at the rear of Viewfield Cottage was repaired after notice had been served on the owner.

Baillieston.—Two dwellings at Calderpark were found to be in a dangerous condition, and notices were served upon the owner and tenants. The tenants were removed and the houses closed.

Broomhouse.—A ruinous block of wash-houses at Boghall Square was taken down after service of a notice.

Carmyle.—Two unoccupied single-apartment dwellings at 31 and 32 Kenmuir Rows, were found to be in a dilapidated and dangerous condition. After notice the dwellings were demolished.

Cleland.—A two-storey building at 86-90 Omoa Road, Cleland, comprising six dwellings, was found to be in a dangerous condition, caused through sudden mineral subsidence. The roof was badly sagged, and the gable and front walls were off the vertical and badly rent. After service of notices the houses were vacated and closed up.

Drainage.

There are still 24 Special Drainage Districts in the Middle Ward Area, no new districts having been formed during the year.

New Sewers.—The following information has been supplied by the District Engineer as to sewers constructed during the year :—

SPECIAL DRAINAGE DISTRICTS.

	Lineal Yards.					
	6"	9"	12"	15"	18"	30"
Aitkenhead and Tannochside, -	—	—	140	—	—	—
Baillieston, . - - -	—	—	502	460	—	—
Bellshill and Mossend, - - -	—	—	—	—	881	—
Cambuslang, - - - -	—	143	—	—	—	—
Holytown and New Stevenston, —	—	—	—	—	—	562
Mount Vernon, - - - -	—	56	—	—	—	—
Salsburgh, - - - -	108	280	198	—	—	—
Strathaven, - - - -	—	126	—	—	—	—
<i>Public Health, General—</i>						
Newarthill, - - - -	—	379	409	710	112	—
Overtown, - - - -	—	—	—	85	—	—
Totals, - - - -	108	986	1,249	1,255	993	562

The number of connections made to sewers during the year was 114.

HOUSING SCHEMES.

Carmyle, - - - -	220 yards, 9-inch pipe.
Do., - - - -	203 „ 15 „ „
Baton, - - - -	132 „ 15 „ „

FACILITIES FOR AREAS OUTWITH SPECIAL DISTRICTS.—The Committee had again under consideration the question of the provision of drainage facilities for areas outwith existing Special Drainage Districts, and as a first step a Sub-Committee was appointed to interview the Scottish Board of Health with a view to informing them of the situation, and the inadequacy of the present law to deal with same, and to urge upon the Board the need for suitable measures being taken at the earliest possible moment to enable drainage facilities to be provided for the areas in question under reasonable conditions. The interview was duly arranged, when the whole subject was fully discussed and the views of the Committee impressed upon the Board. The Board took a very sympathetic view of the matter, and stated that they would carefully consider the representations made to them, along with the other appropriate Government Departments.

Towards the close of the year the Committee agreed that twelve of the most urgent drainage schemes should be prepared, with a view to their submission to the Unemployment Grants Committee for grants under the Unemployment Relief Schemes.

Ferniegair.—Complaints were received with regard to the outfall drain carrying sewage from a portion of the village of Ferniegair through the lands of Ross, and certain proposals were put forward for dealing with the sewage from the properties concerned. The proposals were, however, found to be unsatisfactory, and it was suggested that the Committee might again consider whether a proper scheme of sewers and sewage purification could be introduced to the village. The matter was still in hand at the close of the year.

Greengairs.—Attention was called to the unsatisfactory condition of the Cameron Burn at Greengairs, and the urgent need for suitable drainage arrangements being provided for the village. The chief cause of complaint is the discharge of sewage into the burn from the Housing Scheme without any form of treatment. The District Engineer was instructed to report on the matter.

Glasford.—The negotiations for the provision of sewage facilities for the village of Glasford, referred to on page 155 of last Annual Report, were continued. but, as the various property owners in the village refused to make any contribution towards the cost, the Committee agreed that a modified scheme only should be provided meantime, in order to implement their agreement with the Education Authority, and steps were accordingly taken to acquire the necessary land for irrigation purposes. The matter was still in hand at the close of the year.

Glenboig.—The provision of drainage facilities for the village of Glenboig, referred to on page 155 of last Annual Report, was still under consideration, and intimation was received from the proprietors of the houses in the village that they had given careful consideration to the proposals of the Local Authority, and, while recognising that the present conditions were unsatisfactory, they did not see their way to contribute capital towards the drainage and sewage scheme.

The Committee had again under consideration the complaint as to the foul condition of the burn at Glenboig, and especially the portion at Garnqueen Farm, into which the sewage from practically the whole of the village finds its way, and decided that the authors of the nuisance should be required to remove same. Notices were accordingly served, and no steps were taken by the owners for the removal of the nuisance conditions, but a requisition was received, bearing thirteen signatures and purporting to give notice to the Local Authority, in terms of Section 146 of the Public Health Act, that there existed failure or neglect on their part to perform the duty imposed upon them by the said Act in respect of the provision of certain drainage works for the village of Glenboig. The Committee, after full consideration, was satisfied that there had not been any failure or neglect on the part of the Local Authority to perform any duty imposed upon them by statute in relation to the drainage of the district. Further agreed that the owners, or some of them, were as already advised, responsible for the nuisance conditions existing in the village, and that all necessary steps be taken to compel them to remove such conditions.

Meikle Earnock.—With reference to the discharge of crude sewage from the Housing Scheme into the Cadzow Burn, referred to on page 154 of last Annual Report, the Committee had under consideration reports by the District Engineer for the formation of a Special Drainage District, and also for a modified scheme for dealing with the sewage from the Housing Site, and a report by the Medical Officer of Health dealing with the existing drainage arrangements in the area. Further, consideration of the matter was delayed pending the meeting between representatives of the Committee and the Scottish Board of Health as to the provision of drainage facilities for areas not included within special districts.

Newarthill.—When the drainage works referred to on page 155 of last Annual Report were nearing completion, the question of carrying out additional work was raised, but, after discussion, the matter was delayed pending the conference with the Board of Health.

Overtown.—It was found necessary to call the attention of the Housing Committee to the very foul condition of the ditch extending practically the whole length of the Housing Site, and at one point within about 30 feet of the back of the dwellings. This ditch received the discharge of a 9-inch pipe conveying sink water, and drainage from about a quarter of the village, as also the discharges from several water-closets. It was suggested that a small length of pipe be laid from the existing sewer at the Housing Site to connect up this 9-inch pipe. Attention was also called to the discharge of crude sewage from the Housing Scheme into the lower end of this ditch, which was likely to create serious nuisance, and the hope was expressed that there should be no further delay in proceeding with the purification works. Having regard to the housing interest in the matter, the Committee gave instructions that the Scottish Board of Health be advised of the existing conditions, and that the Committee proposed to lay the necessary sewer to remedy the complaint as to the condition of the ditch immediately behind the houses, the cost of the work to be charged to the State-Aided Housing Account. The sewer was afterwards laid and the ditch cleaned out. The larger question of the discharge of crude sewage from the Housing Scheme was still under consideration at the close of the year.

Salsburgh.—With regard to the proposal to lay a sewer along Jock's Road, and the negotiations with the Airdrie and Coabridge Water Trust, referred to on page 156 of last Annual Report, terms were adjusted, and a grant was also obtained from the Unemployment Grants Committee. The sewer was laid, and the properties formerly drained into the ditch have been connected up.

Complaint was made by the owner of Langside Farm as to the pollution of the Shotts Burn by the discharge of crude sewage from the Housing Scheme and other properties in the village, and the Committee had under consideration the construction of an outfall sewer and tank. Nothing definite, however, had been arranged at the close of the year.

Carfin Road, Craigneuk.—Mineral subsidence having affected the levels of a privately owned 9-inch drain carrying sewage from a tenement of six dwellings, a cottage, and three other dwellings in the County Area at Carfin Road, Craigneuk, but immediately adjoining the Burgh of Wishaw, said 9-inch drain being discharged into the Burgh sewer, the owners were required by the Department to have the private drain lifted and re-graded. The owners, however, asked that the Committee should take over the drain and put

it in order for the benefit of the existing dwellings, and for future building developments in the neighbourhood. The Committee agreed to take no action in the manner suggested, and the drain was afterwards put right by the owners.

Ashgillhead.—Complaint was received as to the pollution of the Stewart Gill Burn by crude sewage from the Ashgillhead Housing Scheme and other properties in the neighbourhood. An inspection was made and a report submitted to the Committee, stating that the pollution was such that the stream could not be regarded as safe for cattle-watering purposes, and that the immediate cause of complaint might be temporarily removed by fencing off a portion of the burn and the provision of a water supply for the adjoining fields. The District Engineer afterwards took the matter in hand, and introduced a supply of gravitation water. The Board of Health were advised of the circumstances and of the action proposed to be taken, and that the cost involved would be debited against the Housing Scheme.

Easterhouse.—Complaints were made as to the pollution of the two head streams of the Tollcross Burn by sewage from Easterhouse and Swinton, and a report was submitted by the Medical Officer of Health stating that, while it did not appear practicable to deal with the district as a whole, each source of pollution could be dealt with by itself, that this would be a simple matter in the case of sewage from certain of the subjects, but in the case of Swinton Village the sewage would require to be purified by irrigation. The *locus* was afterwards inspected by a Sub-Committee and a further report submitted, giving details as to the manner in which the work could be carried out. Some delay took place in negotiating for the land necessary for the irrigation works, and the matter was still in hand at the close of the year.

Harthill.—A report was submitted to the Committee as to the condition of the ditch along the eastern boundary of the Housing Scheme at Murdostoun Crescent, Harthill, that the ditch was badly silted up and, in times of flood, overflowed, and would affect a portion of ground at the foot of the gardens, that the ground was at present waterlogged, and would give rise to nuisance conditions. The Committee agreed that the ditch be piped and filled in. The work has since been completed.

Nerston, East Kilbride.—A complaint was received as to the pollution of a stream running through Nerston Common by sewage from adjoining properties. The matter has been taken up with the parties in default.

Water Supply.

The water supply from the various reservoirs belonging to the Middle Ward District Committee was more than sufficient to meet all demands. Complaints were received as to local deficiencies, but these were mostly found to be due to deficient service pipes and, on being brought to the notice of the respective owners, were remedied in every instance.

The following is a note, prepared by the Water Engineer, showing the extensions of water pipes carried out during the year :—

		Lineal Yards.					
		3"	4"	6"	8"	9"	10"
Burnside, Cambuslang, -	-	—	630	820	—	—	—
Shotts Housing Scheme, -	-	80	—	—	200	—	1,100
Greenlees Toll, Cambuslang, -	-	—	—	825	—	860	—
Lodgehill, East Kilbride, -	-	—	—	—	—	—	1,850
Laigh Cleuchearn, do., -	1,670	—	—	—	—	—	—
Kirktonholm, do., -	—	—	250	—	—	—	—
Wardhead, New Monkland, -	1,000	—	—	—	—	—	—
Bruce Street, Bellshill, -	-	—	200	—	—	—	—
Colinhill Road, Strathaven, -	50	—	—	—	—	—	—
Anderson Street, Carfin, -	50	—	—	—	—	—	—
Summerhill Avenue, Larkhall, -	150	—	—	—	—	—	—
Totals, -		3,000	1,080	1,645	200	860	2,950

Trunk Mains.—The 27-inch trunk main from Camps Water has now been laid for a distance of 27 miles and linked up with the Middle Ward water supply at Deadwaters Farm and Blackwoodyett, supplying daily about 1,500,000 gallons to Glasford Filters and 1,000,000 gallons to Strutherhill Filters.

Water Samples.—Owing to complaints made regarding the quality of water supplies from private and public sources, samples were obtained from the following places and submitted for chemical analysis :—Winterhill, Newmains; Limekilns, East Kilbride; and Quarter Village.

Winterhill, Newmains.—A sample of water taken at the request of the owner-occupier from a well at this property was found on analysis to be unfit for domestic purposes, as it contained an excess of iron. The nearest gravitation supply is over 800 yards distant, and the owner is not prepared meantime to introduce this water, on account of the expense involved.

Limekilns, East Kilbride.—Owing to the presence of suspended matter in the Middle Ward water supplied to this mansion, a sample was obtained, and on analysis the suspended matter was found to be almost entirely of mineral origin. This was ascertained to have been due to previous scouring operations, and on the matter being reported to the Water Engineer a satisfactory remedy was obtained.

Quarter Village.—Serious complaints were made during the year as to the bad quality of the water supply in this village, and an analysis of a sample showed that the water was entirely unfit for human consumpt. The present supply is led to the village from a private reservoir at Airybog, but arrangements have now been completed for the introduction of Middle Ward water.

Scavenging.

There are now 22 Special Scavenging Districts within the Middle Ward Area, two new districts having been formed during the year to include Glengowan and Caldercruix and Waterloo and Overtown. The boundaries of eleven Special Scavenging Districts were extended, namely, Baillieston, Bellshill and Mossend, Bothwell, Cambuslang, East Kilbride, Larkhall, Newarthill, Salsburgh, Shotts and Dykehead, Strathaven, and Uddingston.

BAILLIESTON.—The daily collection and removal of refuse within this special district is carried out by a staff in the direct employment of the Local Authority, the dry refuse being deposited in a coup, and the wet ashpit matter used for farm purposes.

The boundaries of the district were extended to include Rhindmuir and the new County Housing Site.

In view of the increase in the amount of refuse collected from the additional number of dwellings in the Housing Scheme, the Committee agreed to employ a contractor to empty all ashpits in West Maryston during the winter months, thus allowing the staff to devote their whole time to the ashbin collection.

Common Stairs, &c.—Notices in terms of Section 117 of the Burgh Police (Scotland) Act, 1892, were served on two proprietors, requiring them to whitewash or, at their option, to paint the walls and roofs of the common passages and staircases at their properties. The necessary work in each instance was duly carried out.

BELLSHILL AND MOSSEND.—The refuse in this special district is collected and removed daily under the direct control of the local

Sub-Committee of Management, who have a superintendent and staff in their own employment, the refuse being disposed of partly at Bellshill Destructor, and the remainder in a coup. Towards the end of the year the destructor premises were shut up, the Committee having leased a portion of ground on the Jerviston Estate, which is now being used as a coup.

The boundaries of the Special Scavenging District were extended to include (a) on the north, the new North Road County Housing Site and a small adjacent area, and (b) on the south, the Calder Road (West) County Housing Site and a small adjacent area.

BLANTYRE.—The daily collection and removal of refuse within this special district is under the direct control of the local Sub-Committee of Management, who employ a superintendent of their own. On 15th May a change was made by the Committee from direct labour to contract work, which has been carried out in a satisfactory manner. The refuse is disposed of at Blantyre Destructor.

Common Stairs, &c.—21 notices were served requiring the white-washing or painting of common passages and staircases, and in each instance the work was duly executed.

BOTHWELL.—The daily collection and removal of refuse continues to be carried out by the staff employed within this special district in a satisfactory manner, the refuse being disposed of at Fallside Coup.

The boundaries of the special district were enlarged to include the new Bothwell Road County Housing Site and the land lying between same and the Hamilton and Bothwell Branch of the London and North-Eastern Railway.

CAMBUSLANG.—The collection and removal of refuse in this special District was carried out, until 15th May, by a staff in the direct employment of the Committee, since when the work has been contracted for. The refuse is disposed of at Cambuslang Destructor.

The boundaries of the district were enlarged during the year to include (a) on the west side of the special district, the land lying between Duke's Road on the north, the Lanarkshire and Ayrshire Branch of the London, Midland, and Scottish Railway on the south, the boundary of the existing special district on the east, and the Whitlaw Burn on the west; (b) on the south side of the special district, East Greenlees and the land lying between the Kirkhill and Gilbertfield Highway and the southern boundary of the special district; and (c) a small area on the north side of the special district at the Overtown Road.

Common Stairs, &c.—Four notices were served requiring the white-washing of common passages and staircases, and the work necessary was duly carried out in each instance. Notices were also served on ten occupiers, in terms of Section 115 of the Burgh Police (Scotland) Act, 1892, determining the weekly rotation to be observed in sweeping and washing common stairs and landings giving access to their dwellings, and intimating that, in the event of their failing to comply with these requirements, proceedings would be taken against them. Sweeping and washing have since received attention, and proceedings have so far been unnecessary.

CARMYLE AND MOUNT VERNON.—The collection and removal of refuse in this special district continues to be done by the staff in a satisfactory manner. The refuse is partly disposed of on farm lands, and the remainder in coups.

CLELAND AND OMOA.—The refuse in this special district is removed by a contractor and disposed of on farm lands.

DALZELL AND NETHERTON.—The work of scavenging in this special district continues to be done by the staff in a satisfactory manner, the refuse being collected daily and deposited in coups. Part of the time of the staff is devoted to the special district known as Hamilton Road.

EAST KILBRIDE.—The scavenging of this area is carried out by a contractor, and the refuse disposed of in a coup.

This special district was extended to include (a) the Kirktonholm County Housing Site and a small adjacent area; (b) a small area at the Auldhouse Road embracing the house recently built on the fringe of the special district; (c) an area at Strathaven Road, near Platthorn, embracing the house presently being built and a small additional area; (d) a small area at Maxwelltown to make the boundary of the special district coincident with the boundary of the feus; (e) an area embracing the land lying between the boundary of the existing special district on the south side of the Glasgow and East Kilbride Road, near Bosfield, and the Blantyre and East Kilbride Railway; and (f) a small area at Bosfield House.

GARTLEA.—The work in this special district continues to be carried out by the contractor in a satisfactory manner. The refuse is disposed of in a coup.

GLENGOWAN AND CALDERCRUIX.—A requisition having been received, signed by not fewer than ten parish electors, calling upon the District

Committee to consider the propriety of forming that part of the district situated in the Parishes of New Monkland and Shotts, including the villages of Glengowan, Caldercruix, and Hillend, into a Special Scavenging District, a report was made on 6th March, showing that a rate of 5·19d. per £ would be required to meet the annual expenditure. As this rate was a reduction of 2·74d. per £ on the previous estimate—see last Annual Report, page 162—the Committee agreed that a Special Scavenging District be formed. The work of scavenging was commenced on 15th November by a contractor, who disposes of the refuse on farm lands. The work so far has been satisfactorily carried out.

HAMILTON ROAD.—The refuse in this special district is removed daily by the staff employed by the Dalzell and Netherton District, and the work is carried out satisfactorily.

HOLYTOWN, &c.—The daily collection and removal of refuse to New Stevenston Destructor has been carried out by the staff in a satisfactory manner. The ashpit refuse from Legbrannock is collected weekly by a contractor and disposed of on farm lands.

Common Stairs, &c.—Notices in terms of Section 115 of the Burgh Police (Scotland) Act, 1892, were served on four occupiers, and sweeping and washing have since been regularly attended to.

LARKHALL.—The daily collection and removal of refuse from this area is undertaken by a staff in the direct employment of the Committee, the refuse being incinerated at Larkhall Destructor. There are still a number of privy middens within the district, and the refuse from these is disposed of on farm lands or in coups.

The boundaries of the special district were enlarged to include (a) the Hamilton Road County Housing Site and a small adjacent area, and (b) the ground lying between the southern boundary of the special district and a line drawn between the old quarry at East Machan and Harelees.

Common Stairs, &c.—Two notices were served on owners of property who had failed to whitewash or paint the walls and roofs of common passages and staircases. The necessary work was duly carried out.

NEWARTHILL.—The collection and removal of refuse within this special district is carried out satisfactorily by a contractor, the refuse being disposed of on farm lands. All ashpits are emptied once, and ashbins thrice, weekly.

The boundaries of the special district were enlarged to include (a) the whole of the new County Housing Site and the ground between the north-western boundary of the special district and a line 40 yards or thereby distant from and parallel to the portion of the road from Yett Farm to Holytown Station, lying between Yett Farm and the western boundary of the Housing Site; and (b) a small area on the eastern boundary of the special district between the Kennels and Gowkhill, embracing the new Miners' Welfare Centre.

NEWMAINS.—The daily collection and removal of refuse in this special district was carried out in a fairly satisfactory manner by a contractor, the material being disposed of on farm lands.

SALSBURGH.—The weekly collection, by a contractor, of the refuse in this special district was not carried out in a very satisfactory manner. The refuse is disposed of on farm lands.

An extension of the boundaries of the special district to include the portion of the new County Housing Site outwith the district was sanctioned.

SHOTTS AND DYKEHEAD. The removal of refuse in this special district continues to be carried out by the staff employed by the Committee in a satisfactory manner, the material being disposed of on farm lands and in coups. It is gratifying to record that the privy midden system is gradually diminishing, no fewer than 86 of these receptacles having been abolished during the year.

The boundaries of the special district were extended to include (a) the new Dyfrig Street County Housing Site and the land lying between it and the Glasgow and Edinburgh Branch of the London, Midland, and Scottish Railway; (b) a small area at Springhill, embracing a house recently built on the fringe of the special district; and (c) a small area at Torbothie, embracing Southfield Avenue.

STONEHOUSE.—The work of scavenging in this special district is undertaken by a contractor. The refuse from ashbins is collected twice weekly, and the contents of ashpits removed at least monthly. All refuse is deposited in a coup. Some progress has been made during the year in the abolition of the old privy-midden system, 21 of these receptacles being abolished and water-closet accommodation provided.

Common Stairs, &c.—Four notices, in terms of Section 115 of the Burgh Police (Scotland) Act, 1892, were served on occupiers, and sweeping and washing have since been regularly carried out.

STRATHAVEN.—The daily collection and removal of refuse in this special district is in the hands of a contractor, and the work has been carried out in a satisfactory manner. The refuse is deposited in a coup.

The boundaries of the special district were enlarged to include the Cullenpark County Housing Site, the Public Park, and adjacent subjects.

Common Stairs, &c.—Notices were served, in terms of Section 115 of the Burgh Police (Scotland) Act, 1892, on two occupiers. Sweeping and washing have since been regularly attended to.

UDDINGSTON.—The daily collection and removal of refuse within this special District continues to be carried out fairly satisfactorily by a contractor. The refuse is deposited in Fallside Coup.

The boundaries of the special district were enlarged to include the area of ground lying to the north-east of the special district from a point near Hollybank to Spindlehowe Farm, and from Spindlehowe Farm to the northern boundary of the special district at Northcote.

Common Stairs, &c.—17 notices were served on owners of property who had failed to whitewash or paint the walls and roofs of common passages and staircases. The necessary work in each instance was duly carried out.

WATERLOO AND OVERTOWN.—A requisition having been received, signed by not fewer than ten parish electors of the Parish of Cambusnethan, calling upon the District Committee to consider the propriety of forming that part of the district situated in the Parish of Cambusnethan, including Waterloo, Overtown, Gillhead, and Gowkhrapple, into a Special Scavenging District, a report was made on 4th May, giving details of the number of dwellings, water-closets, and privy-middens, &c., and showing that a rate of 8·82d. per £ would be required to meet the annual expenditure. The Committee agreed that a Special Scavenging District be formed. The work of scavenging commenced on 15th November, the refuse from ashbins, &c., being collected twice weekly, and the contents of ashpits removed at least once a month. The refuse matter is disposed of on farm lands and in coups.

AITKENHEAD, TANNOCHSIDE, AND BOTHWELLPARK.—A requisition having been received, signed by not fewer than ten parish electors of the Parish of Bothwell, calling upon the District Committee to

consider the propriety of forming the villages of Aitkenhead, Tannochside, and Bothwellpark into a Special Scavenging District, a detailed report was submitted to the Committee on 9th November, showing that the rate required to meet the annual expenditure would be 5·3d. per £. The matter was under consideration at the close of the year.

CALDERBANK.—A requisition having been received, signed by not fewer than ten parish electors of the Parish of Old Monkland, calling upon the District Committee to consider the propriety of forming the village of Calderbank into a 'Special Scavenging District, a detailed report was submitted to the Committee on 25th July, showing that the rate required to meet the annual expenditure would be 5·6d. per £. The matter was under consideration at the close of the year.

CHAPELHALL.—The question of scavenging facilities for the village of Chapelhall was again under consideration—see Annual Report for the year 1921, page 118—and a further report was submitted to the Committee on 5th April, showing that the rate required to meet the annual expenditure was about 1s. per £. The matter was continued for further consideration.

HOUSING SCHEMES.—The collection and removal of refuse twice weekly from the dwellings at the following Housing Schemes, which are still outwith Special Scavenging Districts, is carried out by contractors under the supervision of the Sanitary Inspector, viz.:—Calderbank, Carnbroe, Chapelhall, Greengairs, Meikle Earnock, Tannochside, and Viewpark.

PROVISION OF DUSTBINS.—During the year notices, in terms of Section 23 of the Burgh Police (Scotland) Act, 1903, were served on certain owners of property within the various Special Scavenging Districts, requiring them to provide proper covered receptacles. In most cases suitable dustbins were provided after service of the notices, and the remainder were duly reported to the Committee with a view to proceedings in terms of Section 24 of the Act being instituted. Legal proceedings were found necessary in three instances, and all were successful, viz.:—25 and 27 Greenrigg Street, Uddingston; 7 and 9 River Road, Carnyle; and 47 Glasgow Road, Cambuslang.

The provision of dustbins at the new Housing Schemes has been the subject of correspondence with the Scottish Board of Health, and approval was ultimately obtained to the provision of bins for all the houses at sites wholly or partly within Special Scavenging Districts

The Board, however, would not allow the cost of bins at sites outwith Special Scavenging Districts to rank for grant, an attitude which cannot well be understood, as the Local Authority, in every instance, insist on owners of property providing proper receptacles for the deposit of household refuse from the dwellings owned by them, wherever situated. The Committee gave instructions that bins be supplied to houses at sites outwith Special Scavenging Districts, and that a further endeavour be made to get the approval of the Board to the cost of these being charged against the capital cost of the Housing Schemes.

WATER-CLOSETS.—The following statement shows the number of privies which existed in Special Scavenging Districts prior to the formation of same; also the number since abolished, and water-closet accommodation provided :—

	Privies.	Abolished		Privies.	Abolished.
Bailleston, -	145	95	Holytown, &c., -	185	158
Bellshill, &c., -	382	366	Larkhall, -	868	824
Blantyre, -	251	250	Newarthill, -	112	11
Bothwell, -	100	96	Newmains, -	246	246
Cambuslang, -	212	212	Salsburgh, -	56	3
Carmyle, &c., -	50	30	Shotts, &c., -	717	308
Cleland, &c., -	260	77	Stonehouse, -	180	35
Dalzell, &c., -	30	22	Strathaven, -	460	460
East Kilbride, -	34	34	Uddingston, -	102	102
Gartlea, -	4	2	Waterloo, &c., -	169	—
Glengowan, &c.,	92	—			
Hamilton Road,	—	—		<u>4,655</u>	<u>3,331</u>

Private Streets.

BLANTYRE.—The insanitary condition of Craig Street was referred to on page 163 of last Annual Report. An arrangement was ultimately come to with the feuars, whereby the street was repaired for adoption by the Committee as a public highway.

Herbertson Street.—This street was referred to on page 164 of last Annual Report. Repairs were executed by certain owners, but these were not up to the standard of the District Engineer's specification, and proved to be most unsatisfactory. The owners were required to carry out additional repairs, and the matter was being dealt with at the close of the year.

Forrest Street was also referred to on page 164 of last Annual Report. Notices were served on the owners requiring them to carry out the works set forth in the specification prepared by the District Engineer, and as no steps were taken by them to give effect to the

order, the Committee decided to execute the work by contract and take steps for the recovery of the amounts due by the respective owners. The work to bring the street up to the requirements of Section 39 of the Public Health Act was commenced towards the end of the year.

Victoria Street.—The lower part of this street, referred to on page 163 of last Annual Report, from Calder Street School to Glasgow Road, has now been repaired, and the question of repair of the upper portion from the hospital to Main Street is still under consideration.

Rosebank Avenue.—Complaint was made regarding the miry condition of this street, and the matter was taken up with the feuars, with the result that the major portion of the street was re-metalled, an extra gully provided, and the footpaths made good.

BELLSHILL.—Hattonrigg Road was reported as being in a very unsatisfactory condition, due mainly to the considerable amount of heavy vehicular traffic making use of same. An estimate of cost was prepared showing the sum required to repair the street in accordance with the Public Health Act, but after a meeting on the ground with the feuars and a representative of the superiors, intimation was received that the superiors would carry out the work to the highway standard and recover the cost from the various feuars.

Maxwell Street and Johnston Street.—These streets were found to be in a very miry condition, and after intimations were served on the feuars the necessary work of repair was carried out.

CAMBUSLANG.—Glen Street, Castle Chimins Road, and Somerville Street were reported to the Committee as being in an unsatisfactory condition.

Glen Street.—Estimates were prepared showing that the cost to repair this street in accordance with the Public Health Act would be £335, and to bring it up to standard for adoption as a highway, £550. On these being submitted to the feuars, they agreed to adopt the highway standard, but on account of the suggestion made by certain of them that the roadway on the west side was already bottomed and in good repair, an amended estimate was afterwards prepared, which reduced the cost to £350. The feuars decided that the District Committee should carry out the work by administration, the cost to be paid according to the statement of allocation submitted to them.

Castle Chimins Road.—Certain difficulties arose regarding the question of the repair of this street under Section 39 of the Public Health Act, and the Committee decided that the superiors should be asked to urge the feuars to carry out the repairs on the streets, in terms of their feu charters. Nothing had been done at the close of the year.

Somerville Street.—In respect of the miry state of this street, the District Engineer was instructed to prepare a scheme for putting the street into a satisfactory state of repair, together with an estimate of cost.

LARKHALL.—Victoria Street, Academy Street, and Claude Street, referred to on page 164 of last Annual Report. Alternative estimates were prepared showing the cost of making up these streets in accordance with the Public Health Act and to the standard required for adoption as highways. These were submitted to the feuars, and negotiations were still proceeding at the close of the year.

Brown Street, a cul-de-sac, was in a miry condition, and, after a meeting with the feuars, was repaired.

TOLLCROSS.—In connection with the insanitary condition of Fullarton Avenue, referred to on page 164 of last Annual Report, alternative estimates were submitted showing the cost of repairing the street in accordance with the Public Health Act and to make it up to highway standard. A meeting with representatives of the feuars was held, when they agreed to recommend to their constituents that the street should be made up to the highway standard. The proposal was confirmed by three owners, but the remaining party, a charitable institution, had not, they stated, the funds necessary for their contribution under the scheme. Negotiations were still proceeding at the close of the year. As regards the portion of the Avenue adjoining Main Street, Tollcross, in the City area, the Corporation of Glasgow approved of the proposal suggested by the District Committee for having this part of the road also put into satisfactory order.

SHUTTS.—The insanitary condition of *Easter Road* and *Windsor Street*, referred to on page 164 of last Annual Report, as also *Hillhouseridge Road*, *Clive Street*, and *King Street*, was again brought before the Committee. As Windsor Street and Hillhouseridge Road had been damaged by the passage of heavy traffic to the Housing Scheme at Calderhead, it was thought judicious to deal with these two streets in the first instance. In view of the fact that these two

streets were now accesses to the Housing Scheme, and were, on that account, subjected to increased traffic, the Committee agreed that it was desirable that these streets should be made up to the highway standard. After negotiations with the feuars, arrangements were come to on the basis of contributions by the District Committee, the Housing Account, and the feuars. The streets have been made up and taken over as highways. No settlement has yet been arrived at with regard to the other streets mentioned.

The private street known as *Manse Road* was made up and resurfaced.

Nuisances.

During the year 73,162 inspections were made for the detection of nuisances, and the number of nuisances recorded was 3,182, the chief being choked drains, foul ashpits and privies.

2,217 intimations were issued to authors of nuisances, and in many instances the cause of complaint was immediately removed. Where the intimations had no attention, statutory notices were served, and these numbered 275.

Legal proceedings were taken in three instances, and in two cases were successful. They might be briefly summarised thus:—

29 Broompark Road, Blantyre.—Choked water-closet. Successful.

116, &c., Main Street, Chapelhall.—Dilapidated ashpit. Successful.

31 South Carmyle Avenue, Carmyle.—Dilapidated chimney; broken kitchen and vestibule floors. Unsuccessful.

Unfenced Shafts.—12 disused mine shafts were found to be in a dangerous condition and dealt with by the Department. These were situated as follows:—Calder, Airdrie; Greenhill, Newhouse; Gunnie No. 5, Newhouse; Drumbowie No. 1, Airdrie; Newhouse; Drumshangie, Airdrie; Drumshangie No. 4; Turdees Nos. 1 and 2, Airdrie; Midton, Arden; Tillanburn, Airdrie; and Bogfield, Tollcross.

Carfin Grotto.—Complaints were received from owners of property in the vicinity of the Grotto, Carfin, that large numbers of visitors were given access to water-closets at their property, and creating nuisance conditions. Thousands of visitors from all parts of the country came during the summer months, and, as the lavatory accommodation at the Grotto was totally inadequate, the matter was taken up with the Church authorities, who submitted a plan showing additional water-closets and urinal. The work had not been commenced at the close of the year, as other extension proposals were being considered.

Smoke Nuisances.—A petition was received from a number of proprietors and occupiers of dwellings at Carmyle Avenue, Tollcross, directing attention to nuisances being created by the emission of smoke and of noises at Tollcross Works, and craving the Local Authority to deal with same. The matter was taken up with the Management of the Company, and was still in hand at the close of the year.

A complaint was received on behalf of certain householders in the Morningside district with regard to a smoke nuisance from Allanton Fireclay Works, Morningside, Newmains. The matter was taken up with the Company, and arrangements made to erect a higher chimney stalk. The work is in hand.

Cinemas.

All the cinemas within the District were regularly inspected during the year, and it was found that in every instance a good standard of cleanliness was being maintained.

Workshops.

The number on the register at the beginning of the year was 395. Since then 11 have been added thereto, and 25 removed therefrom, leaving 381 at the close of the year.

During the year six notices were received from H.M. Inspector of Factories of persons beginning to occupy workshops. The premises were duly inspected, measured, and the occupiers supplied with cards showing the capacity of each room and the number of employees permissible.

The inspections made numbered 627, and three notices were received from the Inspector of Factories regarding insanitary conditions in workshops. The various matters complained of were taken up and dealt with by the Sanitary staff. These related to a foul privy-midden, a dirty bakehouse, and an escape of coal-gas inside a bakehouse. The Department also dealt with ten dirty bakehouses, four dirty walls and floors, six dirty water-closets, and one defective roof and walls, reported by the Sanitary Officers.

Four lists, containing four outworkers, under Section 107 of the Factory and Workshop Act, were received from the City of Glasgow Authority. Inspections were made of all the premises, and these were found in a satisfactory condition.

The following table gives the handicrafts carried on in the various workshops :—

HANDICRAFTS.

Dressmaker, - - -	36	Watchmaker, - - -	8
Tailor, - - -	84	Plumber, - - -	13
Milliner, - - -	14	Tinsmith, - - -	1
Baker, - - -	84	Photographer, - - -	1
Shoemaker, - - -	59	Cycle Repairer, - - -	4
Saddler, - - -	7	Motor Repairer, - - -	5
Blacksmith, - - -	22	Hosier, - - -	4
Joiner, - - -	18	Coachbuilder, - - -	3
Cabinetmaker, - - -	5	Ragpicker, - - -	1
Silk Weaver, - - -	8	Confectioner, - - -	1
Laundry, - - -	1	Underclothing, - - -	1

Public Schools.

The various public schools throughout the District were inspected during the year, and certain matters requiring attention were brought to the notice of the Education Authority.

Water-Closets.—It was discovered that the Education Authority intended to put in a range of trough water-closets at Riggend School, and on communicating with the Works Department the District Sanitary Inspector found that the information was correct, and that it was intended to instal a range of trough closets (Eastern type). On enquiring as to the reason for departing from the pedestal type of closet he was informed that there had been considerable difficulty in getting pedestal closets properly used and kept clean at other schools. The District Sanitary Inspector expressed his surprise, and stated that it should not be a difficult matter for school janitors and teachers to ensure that water-closets were properly used. He asked the Works Department to send in a sketch showing the exact type of closet which it was intended to introduce, so that the same might be submitted to the Committee. Following this the Master of Works 'phoned the District Sanitary Inspector, wishing to know why objection was being taken to this type of closet. Informed him that this Department were not now allowing trough closets to be put in anywhere, as they had been found most unsatisfactory. In certain miners' rows they had already been taken out, and at others were in course of being taken out and modern pedestal closets substituted. The Master of Works said that the closet proposed to be put in by him was of very good type, and as 100 of them had been ordered, it would be rather awkward if objection were raised now. He suggested that they might be allowed

at Riggend School as an experiment, and stated that he had been in communication with the Scottish Board of Health and the Education Department, who had approved of the type of closet, and that these closets were being put in at other places in the county. The Master of Works was informed that no closets of this type were being put in in the Middle Ward, and that it did not lie with the Government Departments mentioned to approve of types of closets for this area, as that was a matter for the Local Authority.

It was later arranged that the closets be allowed to proceed at Riggend as an experiment, and the Master of Works installed similar closets at St. Mary's R.C. School, Larkhall. Later in the year a joint inspection was paid to St. Mary's School, Larkhall, with the officials of the Education Authority, where it was found that a range of seven "Lascar" or Eastern-type trough closets had been put in for the use of girls, opening directly off the play-shed, the whole arrangement being of the most primitive nature, and children using the closets being in view of those in the play-shed. The flushing arrangements were found to be insufficient to cleanse the trough. The Medical Officer of Health pointed out to the Authority's officials that they had taken a retrograde step, and had simply reverted to another form of the old trough water-closet introduced at miners' dwellings in the early years of the century, and which was now being discarded, and that unless children were to be taught at school the proper use of modern water-closets there was no hope that such conveniences, which were now being provided at their homes, would be properly used. The principal arguments put forward by the Authority's officials were that parents objected to their children using closets in common with others, and that it had been found impossible to keep the pedestal type of closet clean at schools such as this. These arguments were not accepted, but it was suggested that the neighbouring school at Glen-gowan might be visited. The pedestal closets there were found clean and in good order, and the janitor stated that he had no trouble with the closets. Muir Street School was next visited, and there again the closets were found beautifully clean, and the headmaster stated that he had no trouble with boys abusing closets or standing up on seats. Larkhall Academy was next visited, and it was there found that the new annex had beautifully-finished inside water-closets and a bathroom. The Medical Officer of Health informed the Authority's officials that he would take this matter up with the Board of Health.

Towards the end of the year plans were submitted for the erection of a new school at Longriggend, and the closets shown thereon were also of the Eastern type. The Committee refused to approve of these closets, and the plans were passed with this reservation.

Calderhead School, Shotts. — The attention of the Education Authority was directed to nuisance conditions arising round the buildings at Calderhead School, Shotts, on every occasion that the premises are let for social functions or dances, the lavatory accommodation available in the school buildings being quite insufficient for such gatherings, there being only one staff water-closet available for the accommodation of ladies, while for the males there is absolutely no lavatory accommodation, with the result that the outside walls of the buildings were improperly used. It was suggested that the Authority might consider whether the time had not now arrived when they should consider discontinuing the letting of the school for public purposes, and that if they continued to let the school for such purposes lavatory accommodation would require to be provided. A communication was received from the Authority stating that, excepting all lets already sanctioned, the school would not be available for letting purposes pending the reconstruction of the school.

Tents and Vans.

In the course of the year 410 inspections were made, and all the premises were found in a clean condition. No cases of overcrowding were detected.

A party of tinkers settled down on a piece of ground near Stonehouse, and refused to remove when requested to do so by the farmer. Complaints were received as to the insanitary condition of the encampment, and the matter was taken up with the superior. After enquiry the tinkers were ordered to leave forthwith. This they did, and the superior has since restored the fence, so that the ground can no longer be used for such purposes.

Interments.

The bodies interred at the expense of the Local Authority during the year numbered 24, the deaths being due to various causes. Three of these bodies were unclaimed, and 21 claimed, but "no sufficient person" undertook the burial.

In every case where application is made to the Local Authority for the interment of a dead body by relatives or others who allege that they are unable to bear the expense of the burial on account of poverty it has been the practice of the Department to make careful enquiry into all the circumstances, particularly to ascertain whether the deceased person was insured in any benefit society, and as a result the expense of five burials was afterwards recovered.

Common Lodging-Houses.

There were three common lodging-houses on the register at the beginning of the year, and all were granted renewal of registration. 60 visits of inspection were made, and the premises were all found in a clean condition.

Dairies, Cowsheds, and Milkshops.

The number on the register at the beginning of the year was 1,379. Since then 25 have been added thereto and 343 removed therefrom, leaving a total of 1,043, including 660 producers of milk and 383 retail purveyors of milk, at the close of the year.

1,473 visits of inspection were made by the Sanitary staff to dairy premises during the year, which number would have been considerably augmented but for the outbreaks of foot-and-mouth disease, during which periods inspections were suspended. In 61 instances the premises were reported to be structurally defective, and notices were served on the owners and occupiers to have the defects remedied.

In two instances notices were served on cowkeepers who had failed to keep their premises in a clean condition, and 30 notices were also served on cowkeepers who had failed to keep their cows properly cleaned and groomed. No further action was found necessary in any instance.

The dairy premises at a farm near Strathaven were found on inspection to be in a dilapidated and neglected condition, and the animals were filthy and ungroomed. The tenant, an eccentric old man of 75 years, who resided by himself, was informed that the premises could no longer be used for dairy purposes, and the dairy stock was afterwards disposed of. Later the tenant was removed to a mental institution, where he subsequently died.

It is gratifying to record a considerable increase in the number of plans submitted during the year for improvements and alterations at dairy premises, and the following were approved of:—

Waterloo Dairy, Overtown.—New byre.

Gartliston Farm, Glenboig.—New byre.

Law Road, Overtown.—New byre.

Shieldburn, East Kilbride.—New byre.

South Torfoot, Strathaven.—New byre.

N. Brownhill, Strathaven.—New byre.

Springside, Sandford.—New byre.

Shawhead, Stonehouse.—New byre.

Easter Farm, Busby.—Reconstruction of drainage system.

Mochriesinch, Greengairs.—Restoration of farm buildings after fire.

Syde of Glengavel, Strathaven.—Alterations to byre.

Loan Farm, Blackridge.—New milkhouse.

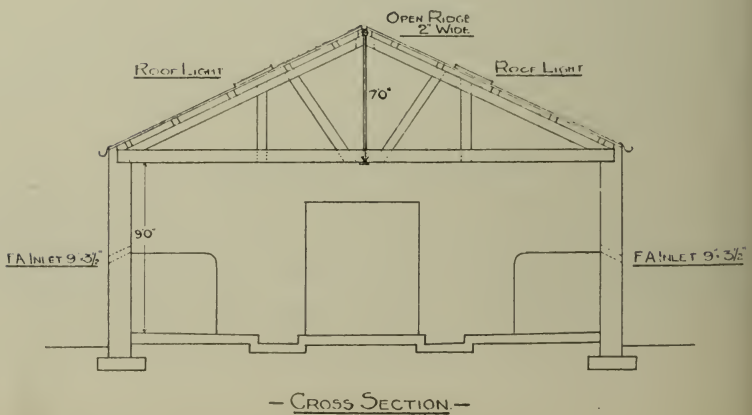
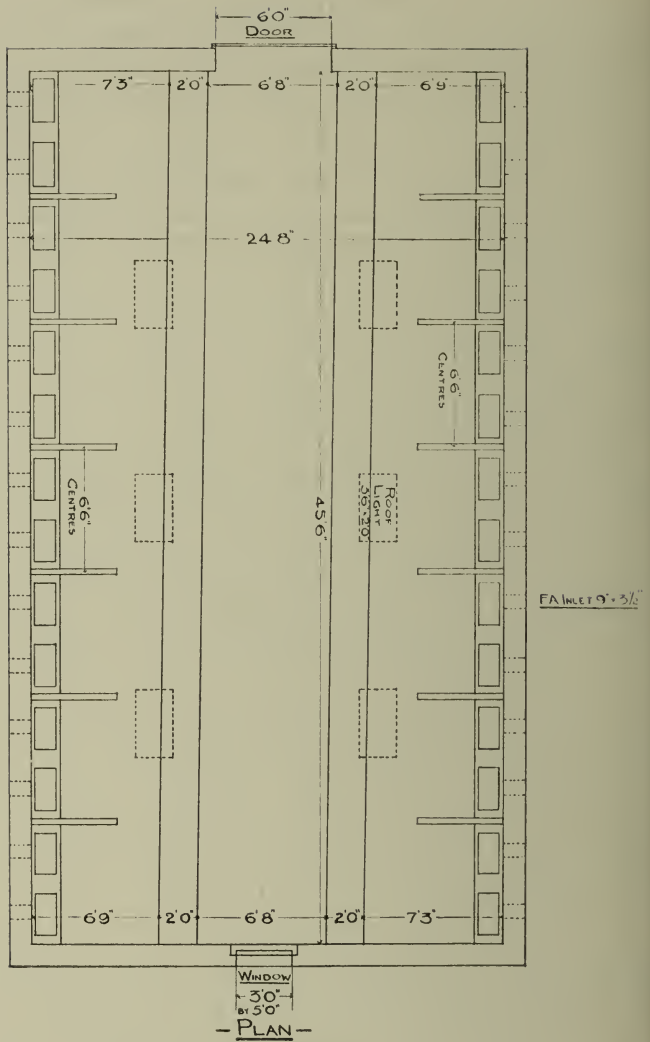
New Byres.—A plan was prepared by the District Sanitary Inspector giving in detail the measurements necessary to comply with the regulations of the Local Authority in respect of cubic space, floor space, ventilation, lighting, &c., of new byres, and a copy of this plan was supplied to persons contemplating the erection of new buildings. A copy of the plan is reproduced on page 198.

It will be noted that the length of the stalls in this byre is graded to suit animals of different ages or breeds, the stalls on one side being longer at one end of the byre, and *vice versa* on the other side. The lighting is by roof lights and two large opening gable windows. Wherever possible the roof lights are put in the north plane of the roof. Inlet ventilation is by means of a 9-inch by 3½-inch opening over each animal's head, 4 feet 6 inches from the floor level. This opening is set at the same angle as the pitch of the roof, and is not provided with any grating. The outlet ventilation consists of a 2-inch slot along practically the whole length of the ridge of the roof. This form of outlet ventilation was successfully experimented with on several byres which were undergoing reconstruction, and where the owners could not see their way to incur the expense necessary to put in a hinged ridge. Doubt was expressed as to the practicability of this form of inlet and outlet ventilation, as there were no means of closing the apertures, but such control has been found quite unnecessary, and the air of the byre is at all times fresh and without draughts even in stormy weather. Objection was also taken to the permanent slot in the ridge, on the ground that rain and snow would enter, but even in a straight downpour of rain the moisture falling through the slot on to the centre passage of the byre in infinitesimal.

A good example of a new byre constructed on these lines is at Waterloo Cross, near Wishaw. This byre stands 515 feet above sea-level, and in an open position. Particular attention was given to the floor gradients, and the levels were supplied to the contractor, who gave the work his personal supervision, with excellent results. The dairyman is thoroughly satisfied with the byre, and, although the winter just past was a severe one, states that he has never possessed such a healthy herd of animals as at present.

Houses Let in Lodgings.

There are no registered houses let in lodgings within the District, and in view of the continued scarcity of housing accommodation it is considered inadvisable meantime to enforce the requirements of the Local Authority's bye-laws so far as registration is concerned.



Offensive Trades.

There are 10 private slaughter-houses in the District, situated as follows :—Caldercruix, Chapelhall, Cleland (three), Greengairs, Harthill (two), Longriggend, and Newarthill. In the course of the year regular visits of inspection were made, when, although the structural conditions are not quite satisfactory, the premises were all found in a clean condition.

Public slaughter-houses in operation belonging to the Local Authority number 7, and these are situated as follows :—Baillieston, Blantyre, Bellshill, Larkhall, Shotts, Stonehouse, and Strathaven.

Knackery.—The only other offensive business carried on in the Middle Ward Area is the knackery at Omoa, where the manufacture of manure is also engaged in. The operations continue to be conducted in a satisfactory manner.

Unsound Food.

The inspections made during the year numbered 70, and one seizure of 28 lbs. of filleted fish was made in a sale shop by the Sanitary officers. Particulars as to the inspection of meat are given in the District Meat Inspector's Report, page 148.

Burial Grounds.

The various burial grounds throughout the District continue to be kept in good order, and the bodies satisfactorily interred.

Owing to unsatisfactory sub-soil drainage, many lairs in the new portion of a cemetery at High Blantyre belonging to Blantyre Parish Council became waterlogged. As a temporary expedient a sump was sunk at the lower end of the cemetery, but this arrangement gave little satisfaction. A new scheme of drainage was formulated, and the work was in hand at the close of the year.

J. MILLAR,

District Sanitary Inspector.

District Offices,

Hamilton, 30th June, 1924.

COUNTY HOSPITAL, NEAR MOTHERWELL.

REPORT BY THE PHYSICIAN-SUPERINTENDENT,
JOHN REID, M.D., D.P.H., F.R.F.P.S.

1923

At the beginning of the year 196 cases were in residence, and during the year 1,748 were admitted, making a total of 1,944 under treatment. Of these, 1,632 were discharged well or improved, 111 died, and 201 were in hospital at the end of the year.

SCARLET FEVER admissions, although slightly lower than in the previous three years, were high. The type of disease has altered very little. The very mild type noted last year has practically disappeared from the hospital admissions. The moderate type has increased, and the fatality rate has increased by .3 per cent.

The number of DIPHTHERIA admissions remains fairly constant. The type has been milder. A considerable drop has taken place in the complicated laryngeal form of diphtheria. The fatality rate was 8.8 per cent., as compared with 17.4 per cent. for the previous year. The average amount of serum given per patient was approximately one-third less than for the previous year.

ENTERIC FEVER admissions, although increased from last year, remain low. Paratyphoid infection was recognised on two occasions among the cases.

PUERPERAL FEVER admissions were four greater than for the previous year. An interesting group of streptococcal peritonitis cases is noted later.

CEREBRO-SPINAL FEVER numbers remain low. Of nine notified cases, only two were proved cases.

The number of NON-PULMONARY TUBERCULOSIS cases varies very little.

VENEREAL DISEASE cases, both indoor and outdoor, are on the decline.

Operative work is on the increase. In all 201 operations requiring a general anæsthetic were performed.

Radiological work has proved a great boon to the hospital, and to some of the tuberculosis dispensaries. 232 cases were photographed and reported upon.

Accommodation for patients and staff has for many years been totally inadequate. The scarlet fever pavilions, except in mid-summer, are hopelessly overcrowded. This overcrowding has a very direct bearing on the large number of complications which occur. Approximately 50 per cent. of the cases develop one or more complications. In the winter months, when a cross infection occurs, it is impossible to close down a pavilion. Even the tuberculosis pavilion has to be cleared periodically to make room for scarlet fever.

The enteric fever pavilion contains all the year round enteric fever, erysipelas, puerperal fever, pneumonia, and any other odd disease, such as encephalitis lethargica, cerebro-spinal fever, tubercular meningitis, &c., with which the isolation pavilion cannot cope. Of the large number of pneumonias for whom accommodation was asked less than 100 could be admitted.

Towards the end of the year and the beginning of the present one measles and whooping-cough were prevalent; urgent requests were received day and night for removal of complicated cases, but practically nothing could be done for these diseases in the way of hospital accommodation.

The best results cannot be obtained in any isolation hospital continually running in a state of chronic congestion, and with no spare ward accommodation to deal with any emergency, such as a cross infection in a large ward.

The staff are housed in four different buildings.

The number of admissions from ALL DISEASES was greatest in the month of October. On the 23rd of that month 14 cases were admitted, while the total admissions for the whole month were 170. During the week ending 8th September, 51 cases were admitted. The average daily number of patients resident was 196.3; the greatest number resident on any one day was 234, on 6th February; and the smallest, 154, on 28th and 29th July.

The average duration of residence of all cases discharged was 41.1 days; of all recovered cases, 49.3 days; and of all fatal cases, 10.9 days.

The fatality rate, calculated on all cases discharged, was 6.3 per cent.

The diagnosis of the medical attendant was revised in 153 cases, or 8.7 per cent. of the total discharged.

Request for removal of patients to hospital was made by the medical attendant in 29·1 per cent. of the cases, and by the Public Health Department in 70·8 per cent.

Scarlet Fever.

On 1st January 139 cases were in residence. During the year 931 cases were admitted, of which 51 were wrongly diagnosed. Fourteen cases notified as other diseases proved to be cases of scarlet fever. There were thus 1,033 actual cases under treatment throughout the year; 879 were discharged well, 19 died, and 135 were in residence at the close of the year.

REMOVAL TO HOSPITAL was carried out in 88·8 per cent. of the cases in the first week of the disease, 8 per cent. in the second week, and 3·1 per cent. during the third week or later.

THE AVERAGE DURATION OF RESIDENCE of all cases was 49·2 days; of recovered cases, 50 days; and of fatal cases, 14·3 days. The following table indicates the period of residence of the 879 recovered cases:—

Week of Discharge.	No. of days in Residence when Discharged.								No. of Cases in each day.								No. of Cases in each week.
Under fifth,	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Fifth, -	-	29	30	31	32	33	34	35	2	2	6	6	5	7	4		32
Sixth, -	-	36	37	38	39	40	41	42	14	21	18	16	37	26	49		181
Seventh, -	-	43	44	45	46	47	48	49	96	94	66	17	30	26	15		344
Eighth -	-	50	51	52	53	54	55	56	27	33	12	11	12	6	8		109
Ninth, -	-	57	58	59	60	61	62	63	20	11	10	2	12	11	5		71
Tenth, -	-	64	65	66	67	68	69	70	2	11	12	2	5	6	1		39
Over ten weeks, -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		86
Total Number of Cases, - - - - -																	879

TYPE OF DISEASE.—704, or 78·3 per cent. of the total cases discharged, were classified as mild; 152, or 16·9 per cent., as moderately ill; and 42, or 4·6 per cent., as very severe. In the latter group, 20 were septic cases, 1 toxic, and 1 was of the typhoid type.

The FATALITY RATE, as calculated on the discharges, was 2·1 per cent.

FATAL CASES comprised 10 males and 9 females. The average age was 5·3 years. The youngest was 2 years, and the oldest 11 years of age. The average duration of illness on admission was 4·7 days; and the average duration of residence, 14·3 days.

Of the 19 fatal cases, 2 were primarily mild, 3 moderate, and 14 severe. The latter figure includes 1 toxic and 11 septic cases.

All developed multiple complications except two. Five cases died from broncho-pneumonia, two abdominal tuberculosis, one nephritis, one streptococcal peritonitis, and two from cardiac disease.

CORRECTED DIAGNOSIS.—Of the cases notified as scarlet fever 5·4 per cent. were wrongly diagnosed. These were—adenitis, 1; arthritis, 1; burn, 1; chickenpox, 1; diarrhoea, 1; diphtheria, 2; doubtful, 6; erythema, 5; measles, 1; negative, 16; pneumonia, 1; septic sores, 1; sore throat, 12; urticaria, 1; whooping-cough, 1.

COMPLICATIONS.—44·8 per cent. of the discharges had one or more complications. Last year a comparatively small number of cases were vaccinated with streptococcal and staphylococcal vaccine, when it was found that the cases who received no vaccine developed fewer complications than those who were vaccinated. The experiment has been continued throughout the present year, when alternate cases were vaccinated with the two vaccines. Of the vaccinated cases, 43·46 per cent. developed complications, and of the non-vaccinated cases 43·84 per cent. developed complications. Obviously, vaccinating scarlet fever cases with moderate doses of streptococci and staphylococci has no effect in reducing complications.

The first dose of vaccine was 12·5 millions streptococci and 250 millions staphylococci. The other doses were doubled at four days' intervals.

Glands.—203, or 22·6 per cent. of the cases discharged showed glandular enlargement. In 13 of these suppuration occurred. Any degree of glandular involvement is included.

Ear.—76, or 8·4 per cent., developed otitis media. In 3 instances the mastoid region was involved.

Heart.—Five cases had organic disease of the heart; other 14 developed functional disorders.

Nose.—95, or 10·5 per cent., developed rhinitis.

Joints.—36, or 4 per cent., developed varying degrees of joint pains.

Kidney.—20, or 2·2 per cent., had true nephritis, and other 66 cases mild albuminuria. One case had uræmia on admission, but recovered.

Lungs.—Five of the septic cases died from broncho-pneumonia.

Eye.—Conjunctivitis, 9; blepharitis, 2.

Skin.—Erysipelas, 2; erythema, 2; serum rash, 1.

Sepsis.—Paronychia, 37; abscesses, 3; arthritis (shoulder), 1; perforation of palate, 1; streptococcal peritonitis, 1.

Other Conditions present on Admission.—Tuberculosis, 3; scabies, 4; psoriasis, 1; tinea, 1; vaginitis, 1.

The two following tables show the age-periods and week of illness at which the complications occurred:—

AGE.	CERVICAL ADENITIS.		OTITIS MEDIA PURULENTA.			CARDIAC COM- PLICATIONS.		Rhinorrhoea.	Arthritis.	Nephritis.	Mastoiditis.
	Suppurative.	Non- Suppurative.	Left.	Right.	Double.	Organic.	Functional.				
Under 1 Year, -	—	—	—	—	—	—	—	—	—	—	—
-2 ,, -	2	5	3	1	3	—	—	8	—	—	—
-3 ,, -	—	12	—	1	1	—	—	7	—	—	—
-4 ,, -	—	27	7	4	5	1	—	20	—	1	—
-5 ,, -	2	24	2	4	1	—	1	17	1	2	—
-6 ,, -	1	20	4	4	3	2	1	12	1	1	2
-7 ,, -	6	21	5	3	2	—	—	15	2	4	—
-8 ,, -	—	14	3	1	—	—	—	7	2	6	—
-9 ,, -	1	9	3	1	—	—	1	3	2	—	—
-10 ,, -	—	12	—	2	2	1	2	2	6	—	—
-15 ,, -	1	33	4	3	1	1	5	4	8	6	—
-20 ,, -	—	7	1	—	—	—	1	—	8	—	—
Over 20 ,, -	—	6	1	—	1	—	3	—	6	—	1
Total, -	13	190	33	24	19	5	14	95	36	20	3

WEEK OF ILLNESS.	CERVICAL ADENITIS.		OTITIS MEDIA PURULENTA.			CARDIAC COM- PLICATIONS.		Mastoiditis.	Arthritis.	Nephritis.	Rhinitis
	Suppurative.	Non- Suppurative.	Left.	Right.	Double.	Organic.	Functional.				
First, - -	4	90	9	9	9	4	5	1	21	4	57
Second, - -	4	40	7	5	3	—	—	2	7	1	9
Third, - -	1	35	7	3	4	1	2	—	2	10	9
Fourth, - -	2	14	4	3	2	—	1	—	3	4	10
Fifth, - -	—	5	2	—	—	—	—	—	3	—	3
Sixth, - -	1	6	2	3	—	—	5	—	—	1	6
Seventh, - -	1	—	1	1	1	—	—	—	—	—	1
Eighth, - -	—	—	1	—	—	—	—	—	—	—	—
Nine, - -	—	—	—	—	—	—	1	—	—	—	—
Total, -	13	190	33	24	19	5	14	3	36	20	95

SERUM.—Diphtheria antitoxin was administered in 77 cases. 13 fatal cases had on an average 16,000 units, and 64 recovered cases 7,000 units. Anti-streptococcus serum was used in 38 cases. 12 fatal cases received on an average 50 c.c., and 26 recovered cases 36 c.c.

MIXED INFECTIONS.—Rubella, 2; whooping-cough, 1; puerperal fever, 1; chickenpox, 1; measles, 1; positive swabs, 5.

CROSS INFECTIONS. — At different times 4 cases of scarlet fever were admitted incubating chickenpox. In all, 27 other cases were infected.

Three cases were incubating measles, and infected 11 others.

“RETURN” CASES.—28 days is taken as the period within which a case is regarded as a “return.” In the following figures, cases which proved on observation not true cases have been disregarded. 24 cases are supposed to have infected 27 others. 18 cases were clean throughout their residence, and 6 others had some complication while in hospital. The average duration of residence of the “infecting” cases was 52.1 days, as compared with 50 days for all recovered cases.

One case was discharged from a scarlet fever ward, and returned three days later with diphtheria.

In the first quarter of the year, 5 so-called infecting cases were discharged; in the second quarter, 2; in the third quarter, 6; and in the fourth quarter, 11.

The infectivity rate is 2·7 per cent. of all cases discharged.

The number of days elapsing between discharge of "infecting" cases and onset of "return" cases is shown in the following table:—

FIRST WEEK.		SECOND WEEK.		THIRD WEEK.	
No. of Days.	Cases.	No. of Days.	Cases.	No. of Days.	Cases.
1	—	8	3	15	3
2	1	9	2	16	1
3	1	10	4	17	2
4	3	11	—	18	—
5	1	12	1	19	—
6	1	13	—	20	—
7	1	14	3	21	—

The following table summarises the figures for certain periods in regard to the infectivity and fatality rates:—

	1915-19.	1920.	1921.	1922.	1923.
Number of Scarlet Fever Patients discharged recovered, -	2,940	985	997	979	879
Number of presumably Infectious Cases discharged, - - -	81	35	37	37	24
Infectivity-rate, - - - -	2·7	3·5	3·7	3·7	2·7
Number of Deaths from Scarlet Fever,	85	10	19	18	19
Fatality-rate, - - - - -	2·6	1·0	1·8	1·8	2·1
Average duration in days of the cases discharged, - - - - -	47·4	44·9	56·6	47·5	49·2

Diphtheria.

At the beginning of the year 36 cases of diphtheria were in hospital, and during the year 254 cases were admitted as such. On observation 58 cases were found not to be suffering from clinical diphtheria, and 2 cases notified as other diseases proved to be cases of diphtheria. There were thus 234 clinical cases treated throughout the year, and of these 186 were discharged well, 18 died, and 30 were in hospital at the end of the year.

REMOVAL TO HOSPITAL was carried out within the first three days of illness in 48·5 per cent of the cases. The figure for the previous year was 52·8 per cent. For the fatal cases the average duration of illness was 7·9 days. The figures are most unsatisfactory, and it is to be regretted that there should be so much delay in obtaining the advantages of modern treatment.

DURATION OF RESIDENCE.—The average duration of residence for all cases was 43 days, of recovered cases 46·3 days, and of fatal cases 9·5 days. Of the recovered cases, 24 were discharged within 30 days, and 6 were resident in hospital over 100 days.

TYPE OF DISEASE.

Faucial Diphtheria.—In 138 cases, including 7 fatal cases, the faucial region of the throat was affected.

MILD.—In 10 instances the exudate was very limited, with little or no toxæmia. Seven cases had antitoxin before admission, and the average amount of serum given in hospital was 6,743 units.

Complications and Sequelæ.—Adenitis, 2; cardiac arrhythmia, 3; carrier, 1; otitis media, 1; serum rash, 4.

MODERATE.—In 35 instances the membrane or exudate was more extensive, and was accompanied by considerable toxæmia. One case had anti-toxin before admission, and the average amount of serum given was 9,200 units. Three cases had anti-streptococcus serum.

Complications and Sequelæ.—Abscess, 1; adenitis, 4; albuminuria, 2; cardiac arrhythmia, 3; palatal paralysis, 1; paronychia, 1; rhinitis, 1; serum rash, 3.

SEVERE.—33 cases, including 7 fatal ones, were of the severe type. Seven cases had serum before admission to hospital. The average amount of serum given was 44,300 units. Six cases had in addition anti-streptococcus serum.

Complications and Sequelæ.—Adenitis, 8; albuminuria, 5; broncho-pneumonia, 2; cardiac arrhythmia, 2; nephritis, 2; otitis media, 2; paralysis, 6.

Laryngeal Diphtheria.—In 41 cases, including 8 fatal cases, the larynx was involved.

MILD.—In 12 cases, including one fatal case, the obstruction was slight. The average dose of serum was 10,000 units.

Complications and Sequelæ.—Broncho-pneumonia, 1; cardiac arrhythmia, 1; rhinitis, 1; serum rash, 2.

MODERATE.—Nine cases showed signs of more extensive laryngeal obstruction. One case had serum before admission to hospital, and the average dose of serum given in hospital was 14,600 units.

Complications and Sequelæ.—Bronchitis, 3; serum rash, 2.

SEVERE.—In 20 cases, including 7 deaths, the obstruction was extreme. These patients all required operative interference. Three cases had serum before admission to hospital, and the average dose of serum given was 27,000 units. Eight cases had in addition anti-streptococcus serum.

Complications and Sequelæ.—Adenitis, 1; bronchitis, 1; broncho-pneumonia, 6; otitis media, 1; rhinitis, 1; tuberculosis, 2.

Faucial and Laryngeal Diphtheria.—The fauces and larynx were involved in 14 cases.

Of four mild cases, one had serum before admission. The average dose of serum given was 8,000 units. Seven moderate cases had on an average 21,000 units of serum, and three severe cases had on an average 24,600 units of serum. Two cases had tracheotomy performed.

Complications and Sequelæ.—Abscess, 1; albuminuria, 3; bronchitis, 1; cardiac arrhythmia, 2; serum rash, 1.

Faucial and Nasal Diphtheria.—Six cases, including two fatal ones. The average dose of serum was 57,400 units, and 5 had anti-streptococcus serum. One case had serum before admission.

Complications and Sequelæ.—Adenitis, 4; albuminuria, 1; cardiac arrhythmia, 1; otitis media, 1; rhinitis, 1; serum rash, 2.

Tracheal Diphtheria.—A female adult had been ill six days with chest signs. It was not until she coughed up an almost perfect cast of the bronchial tubes and a bacteriological examination was made that the true nature of disease was recognised. She had 44,000 units of antitoxin and 50 c.c. of anti-streptococcus serum.

Other Cases.—A female adult was admitted dying, having been ill ten weeks. From the history it was thought that the buccal mucous membrane was primarily involved. She had 32,000 units of serum.

Another missed case was admitted with paralysis of the lower limbs and palate and severe nephritis. She was discharged, after 126 days in hospital, recovered.

The following table summarises the sites of membrane in the total cases discharged :—

SITE OF MEMBRANE.	MILD.		MODERATE.		SEVERE.		TOTAL.	
	Recovered.	Died.	Recovered.	Died.	Recovered.	Died.	Recovered.	Died.
Faucial, - - - - -	70	—	35	—	26	7	131	7
Laryngeal, - - - - -	11	1	9	—	13	7	33	8
Faucial and Laryngeal, - -	4	—	7	—	3	—	14	—
Laryngeal and Nasal, - -	—	—	—	—	6	2	6	2
Tracheal, - - - - -	—	—	—	—	1	—	1	—
Others, - - - - -	—	—	—	—	1	1	1	1
							186	18

DIPHThERITIC PARALYSIS.—Eight cases, or 3·9 per cent. of the clinical cases discharged, developed paralysis in one form or another while in hospital. In addition, other 12 cases had some irregularity of the pulse.

The regions affected were :—Heart, 3; heart and pharynx, 1; palate, 2; palate and legs, 2.

MIXED INFECTIONS.—Diphtheria and scarlet fever, 2; secondary cases, 2; diphtheria and whooping-cough, 2.

COMPLICATIONS.—36 per cent. of the recovered cases developed one or more complications.

OTHER CONDITIONS PRESENT ON ADMISSION.—Chronic otitis media, 1; eczema, 1; impetigo, 1; tuberculosis, 2; vaginitis, 1.

CORRECTED DIAGNOSES.—58, or 22·8 per cent. of the 254 cases admitted, were wrongly diagnosed :—Bronchitis, 4; negative, 2;

positive swab, 18; rhinitis, 1; safety-pin in bronchus, 1; sore throat, 12; tonsillar abscess, 2; meningitis, 1; measles, 2; nasopharyngitis, 1; pneumonia, 1; scarlet fever, 12; general tuberculosis, 1.

FATALITY RATE.—18 cases, or 8·8 per cent. of the 204 cases discharged, were fatal.

FATAL CASES.—Of the 18 cases, 11 were males and 7 females. The average age was 5 years; the average duration of illness prior to admission was 7·9 days; and the average stay in hospital was 9·5 days.

The average amount of antitoxin given was 42,000 units. Three cases had serum before admission. Nine cases died from bronchopneumonia.

OPERATIVE TREATMENT.—In 23 cases tracheotomy was necessary. Of these, 8, or 34·7 per cent., died.

ANTITOXIN.—21, or 10·2 per cent. of the cases discharged, had serum before admission to hospital. Although this is an improvement of 5·8 per cent. on last year's figures, possibly the result of a circular issued by the Medical Officer of Health on the subject, the position with regard to the early administration by the general practitioner of antitoxin is still far from satisfactory. Of the cases classified as mild, 16·4 per cent. had serum, but of the severe cases only 9·4 per cent. received antitoxin before admission.

By far the majority had the serum the same day the case came into hospital, and not on the day when the case was first seen by the practitioner.

The average amount of serum given in hospital was 19,382 units, as compared with 31,000 units for the previous year.

After effects were noted in 20 cases, 17 of which were urticarial, 2 scarlatiniform, and 1 erysipelatous.

Schick Test.

The test was performed in 193 cases of scarlet fever. 78 cases were positive and 115 negative, including 6 pseudo-reactions.

AGE-PERIODS.

AGE PERIODS.													Over	
Years,	1	2	3	4	5	6	7	8	9	10	15	20	20	Total.
Positive,	1	3	5	8	6	7	10	5	11	6	10	2	4	78
Negative,	4	8	7	5	7	10	11	6	12	17	16	5	7	115
Total,	5	11	12	13	13	17	21	11	23	23	26	7	11	193

SAFETY PIN IN BRONCHUS.

A child, aged 5, was admitted notified as laryngeal diphtheria. There was slight intercostal retraction, and although the swab was negative, the case was looked upon as one of mild laryngeal diphtheria. The child got rapidly well after a small dose of anti-toxin. A month later, when about ready for discharge, the patient became suddenly ill, with signs of laryngeal obstruction, which necessitated tracheotomy within two hours of taking ill. The operation gave immediate relief. As the very rapid onset of symptoms could not be explained by diphtheria, the chest was X-rayed. An open safety-pin, with the point downwards, was detected in the right bronchus. The mother now recalled that the child had said a month before admission that she had swallowed a pin. That night the child was feverish and croupy, but rapidly recovered. The incident evidently made no impression on the mother, as it had escaped her memory until she was told what was in the patient's chest. The pin, which was successfully removed by Dr. Brown Kelly through a bronchoscope, had evidently gone down closed, and had opened through corrosion, as the point was found slightly bent towards the catch when it was removed.

Enteric Fever.

At the beginning of the year 2 cases of enteric fever were in hospital. During the year 61 cases were admitted. Of these 63 cases, 15 were wrongly diagnosed. There were thus 48 cases of enteric fever under treatment, of which 42 recovered, 3 died, and 3 were in hospital at the end of the year.

REMOVAL TO HOSPITAL was carried out during the first week of illness in 12 cases, or 26·6 per cent.; during the second week in 19 cases, or 42·2 per cent.; during the third week in 8 cases, or 17·7 per cent.; and during the fourth week or later in 6 cases, or 13·3 per cent.

THE AVERAGE DURATION OF RESIDENCE of all cases discharged was 48·6 days; of recovered cases, 51·4 days; and of fatal cases, 9·6 days.

SEX.—23 were males and 22 were females.

THE AVERAGE AGE of the patients was 24 years.

FATALITY RATE.—A fatal issue resulted in three cases, or 6·6 per cent. of the cases discharged. Two of the patients died from hæmorrhage, and one after perforation.

TYPE OF DISEASE.—25 cases were classified as mild, 8 as moderately severe, and 12 as very severe.

Table showing type of disease and time of admission to hospital:—

Week of Illness.	Mild.		Moderate.		Severe.				Total Cases and Week of Illness.	
					Recovered.		Died.			
	No. of Cases.	Percentage.	No. of Cases.	Percentage.	No. of Cases.	Percentage.	No. of Cases.	Percentage.	No. of Cases.	Percentage.
First, - - - -	4	16·0	3	37·5	4	44·4	1	33·3	12	26·6
Second, - - - -	12	48·0	3	37·5	3	33·3	1	33·3	19	42·2
Third, - - - -	5	20·0	1	12·5	2	22·2	—	—	8	17·7
Fourth, - - - -	4	16·0	1	12·5	—	—	1	33·3	6	13·3
Total, - - - -	25	55·5	8	17·7	9	20·0	3	6·6	45	—

COMPLICATIONS.—35·5 per cent. of the cases had one or more complications.

Gastro-intestinal.—Hæmorrhage, 3 (two fatal); perforation, 1 (fatal).

Urinary.—Bacilluria, 6; cystitis, 1; retention of urine, 1.

Others.—Abscess, 1; bronchitis, 2; otitis media, 2 (1 mastoiditis); relapse, 5; vaginitis, 2.

Other conditions present.—Chronic nephritis, 1; tuberculosis, 1.

CORRECTED DIAGNOSES.—Two cases had positive Widal reactions, without clinical signs. The others were:—Bronchitis, 2; negative, 1; pleural effusion, 1; scarlet fever, 1; transverse myelitis, 1; tuberculosis, 7.

PARATYPHOID FEVER.—An interesting group of cases, which proved to be of Paratyphoid B. infection, came under observation. These were the family of the Superintendent of Kype Water Works, in Avondale Parish. The first case was Mrs. R., the wife of a neighbouring farmer, who had been ill for some weeks. The water-works family had been in contact with the farm. The nurse who attended the family was also infected. The cases all recovered.

Another case of Paratyphoid B. infection was a female, æt 25, from the Upper Ward.

Bacteriological Examination of Fæces.—The County Bacteriologist examined 143 specimens, 139 being negative and 4 positive.

Puerperal Fever.

Three cases were in hospital at the beginning of the year, and 56 were admitted throughout the year. One case, notified pneumonia, proved to be a case of puerperal fever. Of these 60 cases, 34 were discharged well, 17 died, and 9 were in hospital at the end of the year.

TYPE OF DISEASE.—13 were mild, 6 moderate, and 32 severe.

THE AVERAGE AGE of the patients was 30 years; 3 were under 20 years of age, 28 between 21 and 30 years, 16 between 31 and 40 years, 3 between 41 and 50 years, and 1 was over 50 years of age.

THE AVERAGE DURATION OF ILLNESS of all cases prior to admission was 10·1 days; of recovered cases, 8·7 days; and of fatal cases, 12·9 days.

THE AVERAGE DURATION OF RESIDENCE was 31·4 days.

ATTENDANCE AT BIRTH.—Doctor, 11; midwife, 17; doctor and midwife, 12; hospital, 9; nil, 2.

THE FATALITY RATE was 33·3 per cent.

COMPLICATIONS AT BIRTH.—Instrumental delivery, 17; placenta prævia, 7; abortion, 2; still-birth, 2; miscarriage, 1.

NUMBER OF PREGNANCY at which disease occurred:—

Para.	No. of Cases.	Died.	Instrumental Delivery.	Died.
1	19	6	9	5
2	6	3	1	1
3	4	2	2	1
4	2	—	—	—
5	4	1	1	1
6	5	1	—	1
7	1	1	1	1
8	2	—	1	—
9	5	1	2	1
10	2	1	—	—
20	1	1	—	1

COMPLICATIONS DURING THE FEVER.—Abscesses, 4; anaemia, 5; cellulitis, 1; cystitis, 1; empyema, 1; mastitis, 1; peritonitis, 4; thrombosis, 3.

PERITONITIS.—The following three cases of acute and virulent infection, which took place in September last in one doctor's practice, are of interest :—

Aet. 23,	2 para,	forceps,	confined	28th Aug.,	died	1st Sept.
„ 50,	6 „	still birth,	„	28th „	„	3rd „
„ 22,	1 „	no one present,	„	28th „	„	3rd „

The three cases were all delivered on one day, and attended by the same practitioner. They all died within a week from streptococcal peritonitis.

The first case was delivered by forceps. She had an old recto-vaginal fistula, resulting from a tear at the first birth, which had never been repaired. The doctor is of the opinion that this case was the cause of the others. When questioned about his procedure, no flaw could be detected—instruments were boiled, lining of bag was sterilised, new nail brushes were used in each case. It is of interest to note that the child in the last case was born before his arrival, and no examination had been made.

The baby of the first case developed a cellulitis of the head, from which it died.

Erysipelas.

One case was in hospital at the beginning of the year, and 47 were admitted, of which 2 were wrongly diagnosed. Of these 46 cases, 38 were discharged well, 4 died, and 4 were in hospital at the end of the year.

SEX.—Males, 21; females, 21.

TYPE OF DISEASE.—Mild, 15; moderate, 7; severe, 20.

SITUATION OF DISEASE.—Face, 31; arm, 4; leg, 3; nose, 2; wandering, 2.

THE AVERAGE AGE was 37·3 years; the average duration of illness prior to admission, 5·4 days; the average residence of all cases, 27·7 days; of recovered cases, 27 days; and of fatal cases, 14 days.

THE FATALITY RATE was 9·5 per cent. of the cases discharged.

COMPLICATIONS.—Abscesses, 2; bronchitis, 1; carbuncle, 1; cellulitis, 4; osteomyelitis, 1; tuberculosis, 2.

CORRECTED DIAGNOSIS.—Prepatellar abscess, 1; varicose ulcer, 1.

Tuberculosis.

Throughout the year 133 cases of tuberculosis were admitted. Ten were wrongly diagnosed, and 15 others proved to be cases of tuberculosis. Of these 138 cases, 113 were discharged in varying stages of improvement, 17 died, and 8 were in hospital at the end of the year.

The following table shows the age-periods and sexes of the cases discharged :—

AGE.	RECOVERED.		DIED.		TOTAL.	
	Males.	Females.	Males.	Females.	Males.	Females.
-5 years, - -	11	13	5	3	16	16
- 10 „ - -	16	10	2	3	18	13
- 15 „ - -	5	16	—	2	5	18
- 20 „ - -	5	9	—	—	5	9
- 25 „ - -	5	4	1	1	6	5
- 30 „ - -	2	3	—	—	2	3
- 35 „ - -	4	2	—	—	4	2
- 40 „ - -	1	1	—	—	1	1
Over 40 „ - -	4	2	—	—	4	2
	53	60	8	9	61	69

SEX.—Male, 61 ; female, 69.

THE AVERAGE AGE was 13·1 years, and the average residence was 34·7 days.

CLASSIFICATION OF CASES.

Glands, - 63	Abdomen, - 10	X-ray
Bones, - 8	Skin, - - 5	Examination, 8
Spine, - 3	Kidney, - 1	Meninges, - 13
Joints, - 3	General, - 5	Lungs, - 11

GLANDULAR CASES.—Sex.—Male, 27 ; female, 36.

The average age was 9·5 years, and the average duration of residence 36·8 days.

Approximately 76 per cent. were under 15 years of age, 26·9 per cent. being under 5 years of age, 33·3 per cent. between 6 and 10 years, and 14·2 per cent. between 11 and 15 years.

Practically all the glandular cases showed either abscess or sinus formation. Most were opened, and as many as possible transferred to sanatoria for further treatment. In addition, teeth and diseased tonsils were treated.

OSSEOUS CASES.—Sex.—Male, 6 ; female, 2.

The average age was 13·2 years, and the average stay in hospital was 53 days. Three cases were under 5 years of age, two between 6 and 10 years, and three were over 15 years of age.

The bones affected were:—Femur, 1 ; jaw, 1 ; metatarsal, 2 ; phalanges, 2 ; sternum, 1 ; tibia, 1.

SPINE CASES.—Sex.—Male, 2 ; female, 1.

The average age was 34 years, and the average residence in hospital was 19 days. The ages were 28, 28, and 46 years.

One had a Psoas abscess aspirated, and one was X-rayed.

JOINT CASES.—Sex.—Three females.

The average age was 22·6 years, and the average residence in hospital was 66 days. The ages were 10, 14, and 44 years. The joints involved were elbow, hip, and ankle.

ABDOMINAL CASES.—Sex.—Male, 4 ; female, 6.

The average age was 14·3 years, and the average residence was 23·8 days. One case was under 5 years of age, three between 6 and 10 years, two between 11 and 15 years, and four were over 15 years of age.

One case had an appendix sinus; two cases had the abdomen opened ; and one had a prolapsed rectum cured by alcohol injection.

SKIN CASES.—Sex.—Male, 4 ; female, 1.

The average age was 9·2 years, and the average residence 43·2 days.

One case was under 5 years of age, two between 6 and 10 years, and two between 11 and 15 years.

All the cases were rapidly improved with scraping. One case had the affected area excised.

GENITO-URINARY CASE.—A female, aged 11, had a large renal abscess, which was aspirated several times with marked improvement. After 53 days' residence she was transferred to a sanatorium.

GENERAL TUBERCULOSIS.—Sex.—Male, 3; female, 2.

The average age was 3·8 years, and the average residence 58·2 days. Four were under 5 years of age, and one was between 6 and 10 years.

X-RAY EXAMINATIONS.—Sex.—Male, 5; female, 3.

The average age was 27·7 years, and the average duration of residence 5 days. This group was admitted to hospital for X-ray examination and diagnosis. The regions under suspicion were:—Chest, 5; kidney, 1; knee, 2.

PULMONARY TUBERCULOSIS.—Sex.—Male, 4; female, 7.

The average age was 27 years, and the average stay in hospital was 35·8 days. These cases were admitted for operation, or were waiting for admission to sanatoria. Three had abscesses opened, and in three the operation was for empyema.

FATAL CASES.—Sex.—Male, 8; female, 9.

The average age was 7·7 years, and the average residence 14·6 days. One meningeal case was removed from hospital alive, but died later; 12 died in hospital. The others were:—General tuberculosis, 2; abdominal, 2; pulmonary, 1.

CORRECTED DIAGNOSES. — Serous meningitis, 2; pneumococcal meningitis, 1; septic glands, 2; septic foot, 1; bursitis, 1; pyelitis (coliform), 1; tonsillar abscess, 1; negative, 1.

Fifteen cases which proved to be tuberculosis were admitted as suffering from other diseases, viz.:—Enteric fever, 6 (3 fatal); simple pleurisy, 1; diphtheria, 2 (fatal); cerebro-spinal meningitis, 1 (fatal); encephalitis lethargica, 2 (fatal); pneumonia, 2 (fatal); observation, 1 (fatal).

BACTERIOLOGICAL EXAMINATIONS.—Of 12 cerebro-spinal fluids inoculated into animals, four were reported positive. Two were classified bovine infections.

Three positives (two bovine and one human) resulted from 25 experiments with glandular material.

Pneumonia.

Six cases were in residence at the beginning of the year; 87 were admitted, of which 29 were wrongly diagnosed, and three cases, notified as suffering from other diseases, proved to be cases of pneumonia. Of these 67 cases, 45 recovered, 18 died, and 4 were in hospital at the end of the year.

The following table shows the age-periods and the sex of the cases discharged:—

AGE.	RECOVERED.		DIED.		TOTAL.	
	Males.	Females.	Males.	Females.	Males.	Females.
- 5 years, - -	2	5	9	2	11	7
- 10 „ - -	5	2	—	—	5	2
- 15 „ - -	1	3	—	—	1	3
- 20 „ - -	2	3	—	—	2	3
- 25 „ - -	5	1	1	—	6	1
- 30 „ - -	4	—	1	—	5	—
- 35 „ - -	4	—	—	—	4	—
- 40 „ - -	2	1	1	—	3	1
Over 40 „ - -	5	—	3	1	8	1
	30	15	15	3	45	18

THE AVERAGE AGE of all cases was 20·3 years.

THE AVERAGE DURATION OF ILLNESS of all cases prior to admission was 8·4 days; of recovered cases, 6·5 days; and of fatal cases, 14·2 days.

THE AVERAGE RESIDENCE of all cases was 23·5 days; of recovered cases 30·9 days; and of fatal cases, 5·1 days.

TYPE OF DISEASE.—Abortive, 2; apical, 2; broncho-pneumonia, 8; convalescent, 2; double, 3; lobar, 39; resolving, 1; terminal, 1; tuberculous, 1; unresolved, 4.

THE FATALITY RATE was 28·5 per cent.

COMPLICATIONS.—Effusion, 1; empyema, 5; meningitis, 1; nephritis, 1; peritonitis, 1; whooping-cough, 2.

CORRECTED DIAGNOSES.—Bronchitis, 10; cardiac disease, 2; diarrhoea, 1; effusion, 1; empyema, 1; influenza, 1; malnutrition, 1; negative, 7; otitis media, 1; puerperal fever, 1; septicæmia, 1; tuberculosis, 2.

CASES WHICH PROVED TO BE PNEUMONIA on observation were admitted to hospital as:—Diphtheria, 1; enteric fever, 1; scarlet fever, 1.

Measles.

Four cases were notified, and one was wrongly diagnosed. Two cases notified diphtheria, and one scarlet fever, proved to be cases of measles.

SEX.—All were females, including two adults.

The average duration of illness prior to admission was 5 days; the average age was 10·7 years; and the average residence in hospital, 30 days.

One case was incubating whooping-cough, and one died from broncho-pneumonia.

Whooping Cough.

Two cases of whooping-cough and pneumonia were admitted. Another case of the disease was notified as scarlet fever. One case of whooping-cough and chickenpox died.

The average residence was 34·2 days.

Tetanus.

Male, aged 11. This case was sent in for observation, on account of the difficulty he experienced in swallowing. He proved a typical case, and got rapidly well with intraspinal and intramuscular

injections of serum. The interesting point about the case was that no initial lesion was discovered. The patient was discharged in 21 days.

Male, aged 14.—This boy got a piece of an apple barrel into his leg. Ten days later he developed typical signs of tetanus. After the wound, which contained a piece of wood, was excised, and he had large doses of serum intraspinally, intravenously, and intramuscularly, he recovered, and was discharged after a residence of 49 days.

Encephalitis Lethargica.

Nine cases were admitted, four of which proved to be true cases. Three cases recovered, and one remained mentally defective.

The corrected diagnoses were:—Cerebral hæmorrhage, 1; cerebral tumour, 1; cerebral softening, 1; tubercular meningitis, 2.

Cerebro-Spinal Fever.

Of nine notified cases, two proved to be true cases. One recovered after a residence of 45 days, and the other died in 35 days.

The corrected diagnoses were:—Enteritis, 3; pneumonia, 1; serous meningitis, 2; tubercular meningitis, 1.

Tinea Tonsurans and Favus.

Nine cases of tinea tonsurans and two cases of favus were X-rayed and cured.

The average age was 9·1 years and the average residence, 13·1 days.

Venereal Diseases.

At the beginning of the year 6 cases were in hospital, and during the year 91 were admitted. Of these, 12 were wrongly diagnosed. Of 85 cases, 77 were discharged improved, 3 died, and 5 were remaining in hospital at the end of the year.

SEX.—Male, 46; female, 34.

AGE.—Under 1 year, 6; 2 to 10 years, 8; 11 to 20 years, 9; 21 to 30 years, 38; 31 to 40 years, 13; 41 to 50 years, 3; 51 to 60 years, 2; over 60 years, 1.

The average age of the proved cases was 24 years; and the average duration of residence 31·5 days.

The indoor cases were:—Syphilis, 33; gonorrhœa, 23; syphilis and gonorrhœa, 10; soft sore, 2; phagedæma, 2; balanitis, 1; prostatitis, 1; cystitis, 1; phimosis and bubo, 1; gonorrhœal warts, 1; gonorrhœal rheumatism, 1; gonorrhœal ophthalmia, 4.

CORRECTED DIAGNOSES. — Negative, 8; coliform cystitis, 1; impetigo, 1; septic sore, 1; psoriasis, 1.

OPHTHALMIA NEONATORUM.—Four cases were treated. One case had a large corneal opacity of one eye on admission. The others recovered without loss of vision.

The number and nature of the cases attending at the outdoor clinic and the areas from which they came are shown in the following table. There were 216 new cases registered—171 males and 45 females.

VENEREAL DISEASES, 1923.

	Syphilis.	Gonorrhœa.	Syphilis and Gonorrhœa	Soft Sore.	Others V. D.	Others Non V. D.	Total.	Indoor Cases.	Indoor Days.	Outdoor Attendances
Middle Ward, -	103	66	14	4	5	36	228	43	1,357	1,883
Upper Ward, -	7	1	—	—	—	1	9	2	31	13
Lower Ward, -	2	—	—	—	—	—	2	2	55	—
Airdrie, - -	4	4	3	2	—	7	20	9	251	54
Coatbridge, - -	11	—	4	—	1	1	17	4	82	108
Hamilton, - -	37	11	4	—	1	8	61	14	495	779
Kirkintilloch, -	1	—	1	—	—	—	2	2	39	—
Lanark, - -	1	1	—	—	—	—	2	1	6	2
Motherwell, -	36	22	3	2	—	11	74	7	148	700
Rutherglen, -	—	—	—	—	—	1	1	1	12	—
Wishaw, - -	23	7	5	—	1	3	39	5	176	330
Stirlingshire, -	—	1	—	—	—	—	1	2	87	—
Totals, -	225	113	34	8	8	68	456	92	2,739	3,869

The following table is a synopsis of the venereal diseases work since 1917 :—

	1917		1918		1919		1920		1921		1922		1923	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
<i>New Cases:—</i>	67	25	157	65	367	90	434	116	315	88	214	79	171	4
Syphilis, - - -	32	18	74	42	138	46	124	64	107	31	49	36	48	1
Gonorrhœa, - - -	23	1	44	8	141	15	150	12	103	22	75	14	68	1
Syphilis and Gonorrhœa,	2	2	5	5	16	6	22	2	9	7	4	1	4	
Soft Sore, - - -	2	—	2	—	—	—	10	—	1	—	2	—	9	—
Others V.D., - - -	2	1	9	2	12	—	13	4	5	1	5	1	7	—
Others Non V.D., -	6	3	23	8	60	23	114	34	90	27	79	27	35	1
<i>Cases Treated During the Year:—</i>														
Syphilis, - - -	32	18	101	57	189	78	257	134	252	102	176	91	162	6
Gonorrhœa, - - -	23	1	44	8	151	17	186	12	146	24	123	16	100	1
Syphilis and Gonorrhœa,	2	2	8	4	24	6	44	7	35	11	24	6	24	1
Soft Sore, - - -	2	—	2	—	—	—	10	—	3	—	4	—	8	—
Others V.D., - - -	2	1	9	2	12	—	14	4	5	1	7	1	8	—
Others Non V.D., -	6	3	23	8	61	24	115	40	102	29	19	3	48	2
Outdoor Attendances,	253	90	1261	444	4676	450	7505	237	6539	687	3536	706	3270	59
Indoor Cases, - - -	39	18	35	35	59	46	64	60	64	61	46	44	50	4
Indoor Days, - - -	1050	594	864	1105	926	1136	1219	1308	1820	1485	1030	1767	1475	126
Salvarsan Substitute Injections, - - -	168	103	521	333	1227	514	1779	707	1701	645	1092	664	1358	46
No. of Operations, -	7	—	16	—	24	1	27	—	19	—	10	1	14	
„ Wassermann, -	86	55	295	161	563	211	882	318	869	267	570	224	424	13
„ Smears Spirochaetes,	7	—	16	3	35	—	64	—	35	1	18	—	19	—
„ „ Gonococci. -	37	7	93	35	165	40	224	27	181	44	163	36	171	3

Other Diseases and Conditions.

Abscess leg, 1; accident, 1; anæmia, 1; born in hospital, 1; bronchitis, 2; cancer of ovary, 1; cardiac disease and chronic bronchitis, 2; chickenpox, 2; empyema, 1; furunculosis, 1; joint pains, 1; lipoma, 1; large tonsils, 6; Ludwig's angina, 1; naso-

pharyngitis, 1; negative, 3; observation, 2; pelvic abscess, 1; phlebitis, 1; pneumococcal meningitis, 1; scabies, 2; sore throat, 13; trachoma, 4.

Electrical Department.

During the year 232 cases have been photographed. These were :—Chest, 172; bone, 44; foreign body, 6; abdomen, 3; fracture, 3; kidney, 2; venereal diseases, 2.

The sources from which the 232 cases came were:—Cambuslang Dispensary, 62; Blantyre Dispensary, 56; County Hospital, Motherwell, 48; Lightburn Hospital, 22; Bellshill Hospital, 4; Longriggend Sanatorium, 9; Shotts Sanatorium, 1; Bellshill Dispensary, 9; Uddingston Child Welfare Centre, 6; Larkhall Dispensary, 1; Blantyre Hospital, 1; Venereal Diseases Centres, 2; Upper Ward, 3; Lower Ward 1; Hamilton Burgh, 2; medical practitioners, 5.

Operations.

During the year the following operations were performed in the hospital:—

DISEASE.		OPERATION.	RECOVERED.	DIED.	TOTAL.
Tuberculosis	Glands	Excision or Incision	64	—	64
	Bone	Removal Sequestra	12	—	12
	Empyema	Resection Rib	5	1	6
	Skin	Scraping	4	—	4
	Peritonitis	Laparotomy	2	—	2
	Prolapse rectum	Alcohol Injection	1	—	1
	Others	Various.	7	1	8
Diphtheria	Laryngeal	Tracheotomy	15	8	23
	Obstruction				
	Abscess	Incision	1	—	1
	Phimosis	Circumcision	1	—	1
Scarlet Fever	Glandular	Incision	13	—	13
	Abscess				
	Laryngeal	Tracheotomy	1	1	2
	Obstruction				
	Mastoiditis	Radical Mastoid	2	1	3
	Peritonitis	Laparotomy	—	1	1
Enteric Fever	Perforation	Laparotomy	—	1	1
	Mastoiditis	Radical Mastoid	1	—	1
	Abscess	Incision	1	—	1
Erysipelas	Cellulitis	Multiple Incisions	8	1	9
	Osteomyelitis		1	—	1
	Carbuncle	Incision	1	—	1
Puerperal Fever	Empyema	Resection Rib	—	3	3
	Septic Joint	Arthrotomy	1	—	1
	Abscess	Incision	1	—	1
	Peritonitis	Laparotomy	—	3	3
Venereal Diseases	Phimosis	Circumcision	8	—	8
	Abscess	Incision	6	—	6
	Warts	Excision	1	—	1

DISEASE.		OPERATION.	RECOVERED. DIED.		TOTAL.
Scarlet Fever and Puerperal Fever	Septic Joint	Arthrotomy	1	—	1
Pneumonia	Laryngeal Obstruction	Tracheotomy	—	1	1
General Sepsis	Empyema	Resection	2	2	4
	Abscess	Incision	3	—	3
Others	Septic Joint	Arthrotomy	1	—	1
	Lipoma	Excision	1	—	1
	Ludwig's angina	Tracheotomy	1	—	1
	Tetanus	Removal Foreign Body	1	—	1
	Tonsils	Enucleation	9	—	9
	Cancer	Laparotomy	1	—	1
			117	24	201

The following operations were performed by the Consulting Surgeon, Dr. M'Lennan, or a substitute:—Bronchoscopy, 1; laparotomy, 8; mastoidectomy, 3; resection of rib, 2. Two cases were seen in consultation.

The Staff.

On 31st December, 1923, the indoor staff comprised 1 physician-superintendent, 1 assistant medical officer, 1 matron, 9 sisters, 4 staff nurses, 43 probationers, and 32 maids.

The outdoor staff consisted of 1 engineer, 3 firemen, 1 gardener, 6 assistant gardeners, 2 chauffeurs, 1 V.D. attendant, and 2 clerks.

The total staff numbered 107.

LECTURES.—From October till April, lectures and demonstrations on elementary anatomy and physiology, hygiene, fevers, the theory and practice of nursing, and medical and surgical nursing, in accordance with the new syllabus of the General Nursing Council, were given by the medical staff and matron. The course in cooking and dietetics was given by the Education Authority, who granted certificates of proficiency to the successful candidates.

Nine probationers completed the examination under the old scheme, and were granted Scottish Board of Health Certificate for Fever Nursing. Eleven others completed the first half of the examination under the new regulations of the General Nursing Council.

STAFF ILLNESSES.—20 probationers and 4 maids were warded for the following illnesses:—Anæmia, 1; bronchitis, 1; diphtheria 1; headache, 1; joint pains, 1; phlebitis, 1; pleurisy, 1; rubella, 2; scarlet fever, 3; sore throat, 8; tonsillitis, 4.

INOCULATIONS.—Sixteen probationers were vaccinated with T.A.B. vaccine against the enteric group of diseases.

Buildings and Grounds.

PAVILIONS.—We are again indebted to the Works Department for a large amount of repair work being done expeditiously and well. The work included painter work, plumber work, and joiner work.

HEATING AND LIGHTING PLANT.—A supply of electric energy is now taken from the Clyde Valley Company, and converted through motor generators for feeding the old D.C. lighting system. It was not thought advisable to make use of the Clyde Valley Company's supply direct for this, as the pressure was higher, which would have necessitated serious alterations in the existing wiring. In the new switchboard provision has been made for future extensions. The old wood floor has been replaced by reinforced concrete. One of the old electric light engines has been retained as a stand-by.

The laundry engine has been discarded. The shafting in the laundry has been divided into three sections, so that the laundry machines can run separately or together. The shafting is now driven by electric motors. Electric irons have replaced the old gas ones. Further extensions to the drying-room is required. During the year the felting for the six-roller calender was renewed.

GENERAL.—A motor lawn-mower was purchased.

The institution is now using tubercle-free milk.

Ambulance Work.

The Austin chasses are still giving every satisfaction. The bodies of two cars have been overhauled, and all three have been repainted.

	Admissions.	Discharged.	Tuberculosis.	Disinfections.	Others.	Total.
Patients, -	1,469	761	220	—	45	2,495
Journeys, -	1,104	286	137	53	58	1,638
Mileages, -	16,384	6,997	5,308	782	1,182	30,653

Statistics.

TABLE I.—ADMISSIONS (AS NOTIFIED) AND DISCHARGES DURING 1923, WITH THE NUMBERS IN HOSPITAL AT THE BEGINNING AND END OF THE YEAR.

Disease.	In Hospital, 1st January, 1923.		Admitted.		Discharged.				Remaining in Hospital, 31st Dec. 1923.	
					Recovered.		Died.			
	M.	F.	M.	F.	M	F.	M	F.	M.	F.
Scarlet Fever, - -	64	75	399	532	397	520	10	8	56	79
Diphtheria, - - -	22	14	134	120	123	113	15	9	18	12
Enteric Fever, - -	2	—	25	36	22	31	4	3	1	2
Erysipelas, - - -	—	1	23	24	19	21	2	2	2	2
Puerperal Fever, - -	—	3	—	56	—	33	—	17	—	9
Tuberculosis, - - -	—	—	64	69	58	60	3	4	3	5
Pneumonia, - - -	4	2	60	27	45	25	16	3	3	1
Cerebro-Spinal Fever, -	—	—	6	3	2	2	4	1	—	—
Measles, - - -	—	—	2	5	1	4	—	—	1	1
Tinea, - - -	—	—	4	1	4	1	—	—	—	—
Tetanus, - - -	—	—	2	—	2	—	—	—	—	—
Venereal Disease, - -	3	3	51	40	49	40	1	2	4	1
Others, - - -	—	3	30	35	26	34	3	4	1	—
	95	101	800	948	748	884	58	53	89	112
	196		1,748		1,632		111		201	
	1,944				1,944					

TABLE II.—ADMISSIONS AND DISCHARGES IN EACH MONTH OF THE YEAR 1923.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Admitted, - -	162	137	131	132	156	136	130	124	166	170	164	140	1,748
Discharged—													
Recovered, - -	120	163	126	131	137	129	136	101	126	182	124	157	1,632
Died, - -	15	7	8	6	10	11	13	4	14	2	9	12	111

TABLE III.—AGE AND SEX OF PATIENTS DISCHARGED DURING THE
YEAR 1923, WITH THE FATALITY-RATE.
SCARLET FEVER.

Age.	Male.			Female.			Total.		
	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.
0-1,	1	—	—	—	—	—	1	—	—
-2,	11	1	8·3	10	1	9·0	21	2	8·6
-3,	21	—	—	19	—	—	40	—	—
-4,	38	4	9·5	40	2	4·7	78	6	7·1
-5,	40	1	2·4	37	2	5·1	77	3	3·7
-6,	33	1	2·9	48	2	4·0	81	3	3·5
-7,	35	1	2·7	55	1	1·7	90	2	2·1
-8,	37	2	5·1	45	—	—	82	2	2·3
-9,	20	—	—	49	—	—	69	—	—
-10,	33	—	—	35	—	—	68	—	—
-15,	83	—	—	107	1	·9	190	1	·5
-20,	17	—	—	23	—	—	40	—	—
Over 20,	13	—	—	29	—	—	42	—	—
Total, - -	382	10	2·5	497	9	1·7	879	19	2·1

TABLE III. (*contd.*)—DIPHTHERIA.

Age.	Male.			Female.			Total.		
	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.
0-1,	1	3	75·0	1	1	50·0	2	4	66·6
-2,	12	2	14·2	2	—	—	14	2	12·5
-3,	8	2	20·0	7	1	12·5	15	3	16·6
-4,	14	2	12·5	7	1	12·5	21	3	12·5
-5,	8	1	11·1	8	—	—	16	1	5·8
-6,	11	—	—	7	1	12·5	18	1	5·2
-7,	6	1	14·2	11	—	—	17	1	5·5
-8,	11	—	—	9	—	—	20	—	—
-9,	7	—	—	7	—	—	14	—	—
-10,	4	—	—	3	1	25·0	7	1	12·5
-20,	11	1	8·3	22	—	—	33	1	2·9
Over 20,	2	—	—	7	1	12·5	9	1	10·0
Total,	95	12	11·2	91	6	6·1	186	18	8·8

TABLE III. (*contd.*)—ENTERIC FEVER.

Age.	Male.			Female.			Total.		
	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.	Recovered.	Died.	Fatality per cent.
0-5,	1	—	—	—	—	—	1	—	—
-10,	8	—	—	1	—	—	9	—	—
-15,	5	—	—	3	—	—	8	—	—
-20,	2	—	—	2	—	—	4	—	—
-25,	3	—	—	2	—	—	5	—	—
-30,	1	—	—	4	—	—	5	—	—
-35,	1	—	—	2	1	33·3	3	1	25·0
-40,	—	1	100	2	—	—	2	1	33·3
-45,	1	—	—	1	—	—	2	—	—
-50,	—	—	—	2	—	—	2	—	—
Over 50,	—	—	—	1	1	50·0	1	1	50·0
Total,	22	1	4·3	20	2	9·0	42	3	6·6

TABLE IV.—THE STAGE OF THE DISEASE IN WHICH PATIENTS DISCHARGED IN 1923, WERE ADMITTED TO HOSPITAL.

Disease.	Days of 1st Week.							Week of Illness.				Total
	1	2	3	4	5	6	7	1st.	2nd.	3rd.	4th	
Scarlet Fever.	38	186	242	175	86	62	28	817	52	18	11	898
Diphtheria,	8	47	44	43	18	20	6	186	16	—	2	204
Enteric Fever,	—	—	—	2	1	4	5	12	19	8	6	45

TABLE V.—COMPLICATIONS OBSERVED IN PATIENTS DISCHARGED DURING 1923.

Scarlet Fever.	Suppurative Cervical Adenitis.	Non-Suppurative Adenitis.	Otitis Media Purulenta.	Rhinorrhoea	Cardiac Complications.	Nephritis.	Arthritis.	Mastoiditis.	Pulmonary Complications.	Skin Conditions.
In 879 Recovered Cases,	12	182	71	85	17	19	35	2	—	5
In 19 Fatal Cases, -	1	8	5	10	2	1	1	1	5	—
In 898 Cases, - -	13	190	76	95	19	20	36	3	5	5
Percentage, - - -	1·4	21·1	8·4	10·5	2·1	2·2	4·0	·3	·5	·5

Diphtheria.	Adenitis.	Rhinitis.	Otitis Media.	Cardiac Involvements.	Broncho-Pneumonia.	Bronchitis.	Paralysis.	Arrhythmia.	Nephritis.	Albuminuria.
In 186 Recovered Cases, -	15	8	5	—	—	5	4	12	2	9
In 18 Fatal Cases, - -	4	1	—	3	9	—	1	—	1	1
In 204 Cases. - - -	19	9	5	3	9	5	5	12	3	10
Percentage, - - -	9·3	4·4	2·4	1·4	4·4	2·4	2·4	5·8	1·4	4·9

Enteric Fever.	Perforation.	Hæmorrhage.	Bronchitis.	Relapse	Bacilluria.	Abscess.	Otitis Media.
In 42 Recovered Cases, - - -	—	1	2	5	6	1	2
In 3 Fatal Cases, - - -	1	2	—	—	—	—	—
In 45 Cases, - - -	1	3	2	5	6	1	2
Percentage, - - -	2·2	6·6	4·4	11·1	13·3	2·2	4·4

TABLE VI.—ADMISSIONS (AS NOTIFIED) SINCE OPENING OF HOSPITAL.

Year.	Enteric Fever.	Scarlet Fever.	Diphtheria.	Erysipelas.	Puerperal Fever.	Measles.	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Cerebro-Spinal Fever.	Veneral Diseases.	Timea.	Quarantine.	Other Diseases	Total.
1897	19	70	—	1	—	9	—	—	—	—	—	2	3	104
1898	211	349	12	2	2	13	—	—	—	—	—	12	10	611
1899	235	571	21	5	—	1	—	—	—	—	—	12	4	849
1900	145	638	21	6	2	6	—	—	—	—	—	6	8	832
1901	291	621	31	7	—	—	—	—	—	—	—	14	—	964
1902	160	431	16	12	—	6	—	—	—	—	—	74	12	711
1903	174	187	22	14	1	2	—	—	—	—	—	15	2	417
1904	112	155	53	13	1	3	—	—	—	—	—	317	12	666
1905	300	114	66	12	4	1	23	—	—	—	—	88	5	613
1906	214	283	72	8	2	6	76	—	8	—	—	9	7	685
1907	99	317	283	4	9	2	106	—	94	—	—	10	6	930
1908	131	508	206	14	6	9	53	—	61	—	—	16	7	1,011
1909	109	834	164	11	10	3	1	—	10	—	—	3	6	1,151
1910	148	696	267	16	12	1	27	—	5	—	—	—	15	1,187
1911	122	670	248	16	12	4	—	—	7	—	67	—	47	1,193
1912	106	888	193	11	9	5	5	13	2	—	73	—	47	1,352
1913	126	838	246	12	6	2	16	37	7	2	61	—	15	1,368
1914	108	958	361	20	11	4	11	44	7	5	27	—	13	1,569
1915	115	750	286	25	12	4	18	65	29	4	26	—	30	1,364
1916	95	1,030	251	12	16	1	16	45	17	2	—	—	14	1,499
1917	92	642	191	17	13	22	3	120	26	99	4	—	26	1,255
1918	105	313	241	13	7	29	7	93	14	236	13	—	204	1,275
1919	118	595	280	16	28	24	11	87	24	111	6	—	155	1,455
1920	59	1,128	313	33	39	10	—	107	29	124	5	—	103	1,950
1921	107	1,047	250	38	54	1	—	156	12	123	19	—	101	1,908
1922	49	1,093	234	39	56	12	—	133	12	87	11	—	184	1,910
1923	61	931	254	47	56	7	11	122	9	91	5	—	154	1,748
	3,611	16,657	4,582	424	368	187	384	1,022	373	884	317	578	1,190	30,577

TABLE VI.—CASES REMOVED TO HOSPITAL, CLASSIFIED ACCORDING TO LOCALITY.

PARISH.	LOCALITY.	Enteric Fever.		Scarlet Fever.		Diphtheria.		Puerperal.		Erysipelas.		C.-S. M.		Pneumonia.		Tuberculosis.		V. D.		Typhoid.		Others.		Total.	
		Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.	Admitted.	Died.
Arondale,	Strathaven,	—	—	28	1	3	—	1	1	—	—	—	—	3	—	1	—	—	—	—	—	—	—	36	2
Blantyre,	High Blantyre,	—	—	28	1	16	3	5	1	2	—	—	—	10	3	2	—	2	—	—	—	3	—	68	8
	Low Blantyre,	—	—	32	2	17	2	3	—	6	—	2	—	11	4	19	2	3	—	—	—	7	2	100	12
Bothwell,	Bellshill,	4	—	60	1	36	5	8	1	4	—	2	1	12	1	11	—	2	—	—	—	4	2	143	11
	Bothwell,	4	—	14	1	4	—	—	—	1	—	—	1	1	1	1	1	1	—	—	—	1	1	26	4
	Carfin,	—	—	7	—	—	—	—	—	—	—	—	—	1	1	1	—	1	—	—	—	—	1	10	2
	Carnbroe,	—	—	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—
	Chapelhill,	—	—	3	—	1	—	—	—	—	—	—	—	1	1	1	—	—	—	—	—	1	—	7	1
	Holytown,	1	—	9	—	4	—	1	—	—	—	—	—	—	—	1	—	—	—	—	—	1	1	16	1
	Nackerty,	—	—	1	—	3	—	—	—	1	—	—	—	—	—	1	—	—	—	—	—	1	—	6	1
	Newarthill,	—	—	22	—	9	—	1	—	—	—	1	—	—	—	—	—	1	—	—	—	—	—	34	—
	New Stevenston,	5	—	21	—	5	2	1	—	—	—	—	—	1	—	3	—	2	—	—	—	—	—	38	—
	Palace Colliery,	1	—	86	1	2	—	—	—	1	1	2	—	—	1	—	1	—	—	—	—	—	—	92	4
	Uddingston,	—	—	58	1	6	1	2	—	4	—	1	—	15	3	3	—	7	—	1	—	2	1	99	6
	Mossend,	2	1	18	—	12	—	—	—	1	—	1	—	2	1	3	—	1	—	—	—	—	1	40	3
	Tannochside,	—	—	3	—	4	2	3	—	1	1	—	—	—	—	1	—	—	—	—	—	—	—	12	3
Cambuslang,	Cambuslang,	12	1	23	—	—	—	2	1	—	—	—	—	12	3	20	2	4	—	3	—	7	2	83	9
	Newton,	—	—	28	—	9	2	1	—	1	1	—	—	5	—	3	—	—	—	—	—	1	—	48	3
Cambusnethan,	Newmains,	—	—	23	1	7	2	1	—	—	—	—	—	1	1	3	—	—	—	—	—	—	—	35	4
	Netherton,	—	—	8	—	1	—	—	—	—	—	—	—	2	—	—	—	1	—	—	—	—	—	12	—
	Overtown,	—	—	31	—	1	—	—	—	—	—	—	—	—	—	4	—	—	—	—	—	—	—	36	—
	Waterloo,	—	—	12	—	—	—	—	—	—	—	1	1	—	—	1	—	2	—	—	—	1	—	16	2
Dalserf,	Larkhall,	10	—	85	2	14	1	3	2	1	—	—	—	5	1	6	—	4	—	—	—	6	2	134	8
	Dalserf,	—	—	42	1	3	—	1	—	2	1	—	—	—	—	1	—	—	—	—	—	—	—	49	2
	Netherburn,	—	—	22	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	25	—
Dalziel,	Dalziel,	—	—	8	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	10	—
	Hospital,	—	—	9	—	1	—	—	—	—	—	—	—	2	—	—	—	—	—	—	14	—	—	26	—
East Kilbride,	East Kilbride,	—	—	15	1	—	—	1	—	—	—	—	—	—	—	1	—	—	—	—	—	3	—	20	1
	Busby,	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—
Glasford,	Glasford,	—	—	8	—	—	—	1	—	2	—	—	—	—	—	1	—	—	—	—	—	—	—	12	—
	Chapelton,	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—
Hamilton,	Quarter,	—	—	13	1	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14	2
	Ferniegar,	—	—	10	—	4	1	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	16	1
	Cadzow,	—	—	4	—	3	1	1	1	—	—	1	1	3	—	—	1	—	2	—	2	1	—	16	5
	Eddiewood,	—	—	5	—	3	1	—	1	—	—	—	—	6	—	—	—	—	—	—	—	—	—	14	2
New Monkland,	Airdrie,	3	—	5	—	—	—	—	—	1	—	—	—	1	—	1	—	1	—	—	—	3	—	15	—
	Whiterigg,	—	—	—	—	—	—	1	1	—	—	—	—	1	—	1	—	—	—	—	—	1	—	4	1
	Plains,	1	—	5	—	2	1	2	2	—	—	—	—	1	—	—	—	—	—	—	—	—	—	11	3
	Caldercruix,	3	1	8	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12	2
	Longriggend,	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	2	—
	Glenboig,	—	—	4	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	—
Old Monkland,	Calderbank,	2	—	8	1	6	1	—	—	—	—	—	—	1	—	—	—	3	—	—	—	—	—	20	2
	Baillieston,	—	—	2	—	1	—	3	1	—	—	—	—	5	—	10	—	2	—	—	—	—	—	23	1
	Tollcross,	1	—	—	—	1	—	—	—	—	—	—	—	1	—	—	—	2	—	—	—	—	—	5	—
	Bargeddie,	—	—	2	—	2	—	2	1	—	—	—	—	1	—	1	—	2	—	—	—	—	—	10	1
Shotts,	Shotts,	—	—	106	1	17	1	2	—	4	1	—	—	14	5	16	1	5	—	—	—	5	1	169	10
	Hartwood,	—	—	6	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	2
	Harthill,	—	—	14	—	6	1	—	—	1	—	—	—	2	—	1	—	—	—	—	—	—	—	24	1
	Cleland,	—	—	51	1	17	1	2	—	1	—	—	—	—	—	—	—	1	—	—	—	—	—	72	2
	Salsburgh,	—	—	17	—	1	—	1	—	1	—	—	—	—	—	2	—	—	—	—	—	1	—	23	—
Stonehouse,	Stonehouse,	—	—	30	—	2	—	—	—	2	—	—	—	—	—	1	—	—	—	—	—	1	—	36	—
Upper Ward,		—	—	92	1	—	—	1	—	1	—	1	—	3	—	4	2	3	—	3	—	3	1	111	4
Lower Ward,		—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	3	—
Military Cases,		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Burghs,		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	—	—	5	—
	Airdrie,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	2	1	1	—	—	—	4	1
	Coatbridge,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	1	—	—	—	—	5	1
	Hamilton,	—	—	—	—	—	—	1	—	1	—	—	—	—	—	7	—	10	2	—	—	—	—	19	2
	Rutherglen,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—
	Motherwell and Wishaw, Lanark,	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	17	1	—	—	—	—	18	—
		49	3	1093	18	234	31	56	14	39	5	12	4	124	25	133	10	87	—	11	—	72	18	1910	132



COUNTY OF LANARK.

DISTRICT OF THE LOWER WARD.

REPORTS

OF THE

MEDICAL OFFICER OF HEALTH

AND OF THE

SANITARY INSPECTOR

1923.

Medical Officer of Health,	- -	County Offices, Hamilton.
Asst. Medical Officer of Health,	- }	County Buildings,
Sanitary Inspector,	- - - }	149 Ingram Street, Glasgow.

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COUNTY OF LANARK.

DISTRICT OF THE LOWER WARD.

(AREA, 24,643 ACRES.)

Report by the Medical Officer of Health

FOR THE YEAR 1923.

VITAL STATISTICS.

The **Population** at the Decennial Census in June, 1921, was 29,933. The estimated population for the year 1923 was 31,500. The population of the various parishes is given in Table B.

The number of *inhabited houses* according to the Valuation Roll amount to 6,092, and there are 53 not inhabited. The uninhabited houses consist mainly of houses in course of erection.

Statistical Tables.—Table A shows the birth and death-rates per thousand of the population and the infantile deaths per thousand births for the decennial periods 1891-1900, 1901-10, and 1911-20, as well as those for the years 1921, 1922, and 1923.

Table B shows the population, births, and deaths for the year in each parish and registration district, with the deaths classified according to cause.

Table C shows the deaths classified according to cause and age periods.

The **Births** registered in the district, after correction for transfers, amounted to **664**—males, 342; females, 322—giving a birth-rate of **21.08** per thousand of the population.

The number of *illegitimate births* registered in the district, after correction for transfers, amounted to **35**—males, 17; females, 18—giving an illegitimate rate of 5.2 per hundred total births.

The **Deaths** registered in the district, after correction for transfers, amounted to **320**, giving a death-rate of **10.1** per thousand of the population, compared with a rate of 11.4 in the previous year.

The deaths of infants under one year amounted to 48, giving an *infantile mortality rate* of 72.3 per thousand births, compared with a rate of 74.6 in the previous year.

DEATHS IN RELATION TO AGE.—The deaths are here arranged in recognised age periods and the percentage proportion of deaths at each age period is given :—

Infant Period,	Under one year,	48 deaths or 15.0 per cent
Under School Age,	1-5 years,	20 „ 6.2 „
School Age,	5-15 „	11 „ 3.4 „
Adolescent,	15-25 „	21 „ 6.6 „
Early Mature Period,	25-45 „	38 „ 11.9 „
Late „ „	45-65 „	76 „ 23.8 „
Post „ „	65 years and upwards,	106 „ 33.1 „

DEATHS DUE TO INFECTIOUS DISEASE.—The deaths due to notifiable diseases numbered 56, made up as follows :—Diphtheria, 3 ; Erysipelas, 2 ; Tuberculosis, 34 (Pulmonary, 26 ; Abdominal, 4 ; and Other Forms, 4) ; Pneumonia (all forms) 15 ; Puerperal Sepsis, 2.

The deaths due to non-notifiable diseases amounted to 13—Diarrhoea, 6 ; Whooping Cough, 5 ; and Measles, 2.

RESPIRATORY DISEASES.—The deaths during the year numbered 33, and the following statistics shew the deaths and death-rates per 1000 of the population of the various forms for the past four years and for the two quinquennial periods, 1911-15, and 1916-20.

Year	Pneumonia		Bronchitis		Influenza		Other Respiratory Diseases	
	Deaths	Death-rate	Deaths	Death-rate	Deaths	Death-rate	Deaths	Death-rate
Average 1911-15.	45	1.10	32.	0.78	3	0.06	4	0.09
Average 1916-20	41	1.38	23.	0.76	5	0.16	6	0.18
1920.	33	1.1	27.	0.9	—	—	7	0.2
1921.	21	0.7	10.	0.3	13	0.4	5	0.1
1922.	26	0.8	16.	0.5	29	0.9	3	0.09
1923.	15	0.4	13.	0.4	3	0.09	2	0.06

TABLE B.—LOWER WARD.—Year 1923.—Population, Births and ^aDeaths in each Registration District, with Deaths classified according to cause.

REGISTRATION DISTRICTS.	ESTIMATED POPULATION 1923.	BIRTHS.	Enteric Fever. Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Influenza.	Erysipelas.	Other Septic Diseases.	Cerebro-spinal Fever. Pulmonary Tuberculosis. Meningeal Tub.	Abdominal Tub.	Other Tuberculosis.	Malignant Diseases.	Rheumatic Fever.	Meningitis (simple) Cerebral Haemorrhage. Convulsions.	Other Nervous Diseases.	Organic Heart Disease.	Bronchitis.	Pneumonia.	Laryngitis.	Other Respiratory Diseases.	Diarrhoea.	Appendicitis and Typhilitis.	All Liver Diseases (not malignant). Other Digestive Diseases.	Nephritis and Bright's Disease.	Puerperal Sepsis.	Dis. and Acc. of Pregnancy, &c.	Congenital Malformations.	Premature Birth.	Atrophy, Debility and Marasmus.	Atelectasis.	Injury at Birth.	Suffocation—Overlying.	Syphilis.	Rickets.	Violence.	Suicide.	Other Defined Diseases.	Ill-defined Diseases.						
Shettleston	9,150	113	1	1	...	7	...	1	1	6	...	2	4	...	2	9	3	4	...	1	1	1	...	2	1	...	1	1	3	4	1	8	...			
Springburn		2	2	1	1	1	8	...					
Maryhill		1	1	1				
Possilpark		39	1	1	1	...	3	1				
Garngadhill	16,650	14	1	1	2	1	1	1	1			
Cadder—East		206	2	1	4	8	17	...	8	14	5	5	2	3	1	1	1	3	...	1	3	...	17	1			
Cadder—West		171	...	1	...	2	...	1	1	9	...	2	2	5	4	...	5	9	2	3	...	1	1	4	...	1	4	5	1	1	2	...	9	1
Carmunnock	900	14	2	4	...	1	1	1	...	1	2	...	9	1				
Rutherglen	4,800	104	...	1	...	1	...	1	...	3	...	1	1	2	1	...	2	7	2	3	1	...	2	3	...	1	...	3	2	1	2	...	3	...		
Total	31,500	664	...	2	...	5	3	2	2	...	1	26	...	4	4	28	...	3	30	1	17	45	13	15	...	2	6	2	...	11	6	2	2	2	12	15	1	2	2	8	1	43	2

^a These are the Nett or Adjusted Deaths, having been corrected for institutions and other transfers in accordance with the Scottish Board of Health instructions.

TABLE C.—LOWER WARD.—Year 1923.—Deaths classified according to Cause and Age Periods.

CAUSE OF DEATH.	Registered in District.	Transferred from other Districts.	Transferred to other Districts.	Nett Deaths.	NETT DEATHS AT DIFFERENT AGE PERIODS.																		
					Weeks.				Months.				Years.										
					1	2	3	4	1	3	6	9	1	5	10	15	25	35	45	55	65	Over 75	
Enteric Fever, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Smallpox,	3	...	1	2	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...
Measles,	3	...	3	...	...	...	...	...	...	1	1	1	2	...	...	...	...	...	...	...	...	...
Scarlet Fever	6	...	1	5	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...
Whooping Cough.	9	...	6	3	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...
Diphtheria,	2	...	...	2	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...
Influenza,	3	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas,	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Other Septic Diseases,	1	...	...	1	...	...	...	...	...	...	...	...	1	...	1	9	6	3	4	2	...	...
Cerebro-Spinal Fever,	85	3	62	26	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Tuberculosis,	2	...	2	...	...	...	...	...	...	...	1	...	2	...	...	1	...	...	...	...	...	...
Meningeal "	8	3	7	4	...	...	...	...	...	...	...	...	1	1	...	...	1	1	...	...	...	...
Abdominal "	27	2	25	4	...	...	...	...	...	...	...	...	...	...	...	1	2	3	8	11	3	...
Other Forms "	26	5	3	28	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Malignant Diseases, . . . . .	...	...	...	...	...	...	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...
Rheumatic Fever,	4	1	2	3	...	...	...	...	...	...	...	...	...	...	...	...	...	3	6	9	12	...
Meningitis (Simple)	33	5	8	30	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Cerebral Haemorrhage,	1	...	...	1	...	...	...	...	...	...	1	...	1	...	...	1	1	5	1	7	1	...
Convulsions,	53	4	40	17	1	...	2	3	7	8	10	14
Other Nervous Diseases,	51	7	13	45	3	3	4	1	...
Organic Heart Diseases,	16	1	4	13	...	...	...	...	...	...	...	1	...	...	...	...	...	4	4	...	2	...
Bronchitis,	25	6	16	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pneumonia, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Laryngitis,	2	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Respiratory Diseases,	6	...	...	6	...	...	...	...	...	1	2	...	2	1	...	...	...	...	...	...	...	...
Diarrhoea (under 2 years),	1	3	1	3	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...
Appendicitis and Typhlitis, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
All Liver Diseases (normal),	10	4	3	11	...	...	...	...	...	...	1	...	...	...	1	1	3	1	...	1	1	1
Other Digestive Diseases,	4	2	...	6	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...
Nephritis and Bright's Disease,	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...
Puerperal Sepsis,	1	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...
Dis. and Acc. of Pregnancy, &c.	1	1	...	2	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Congenital Malformations,	11	1	...	12	11	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Premature Birth,	15	1	1	15	7	2	1	...	2	1	1	1	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, &c.,	1	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atelectasis,	1	1	...	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Injury at Birth, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Suffocation—Overlying, . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Syphilis,	2	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rickets,	16	3	11	8	...	...	...	...	...	...	...	...	2	...	1	...	1	2	2	...	...	...
Violence,	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
Suicide,	71	7	35	43	...	...	...	...	...	...	...	...	1	...	2	1	2	3	2	4	9	19
Other Undefined Diseases,	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
All Defined Diseases,	504	62	246	320	20	4	1	1	5	8	4	5	20	4	7	21	18	20	38	38	53	53	
Total,	504	62	246	320	20	4	1	1	5	8	4	5	20	4	7	21	18	20	38	38	53	53	

INFLUENZA.—In accordance with the new method of classification adopted by the Registrar-General since 1st January, 1921, 2 deaths were ascribed to Influenza. The diseases complicating these deaths were Myocarditis in one and in the other Encephalitis Lethargica.

MALIGNANT DISEASES.—Deaths falling under this heading numbered 24—males, 12; females, 12. The type of disease was—Carcinoma, 19; and other forms, 5. The disease affected some portion of the gastro-intestinal tract in 21 cases; the genito-urinary tract, 1 case; the breast, 2 cases.

TABLE A.—BIRTH-RATES AND DEATH-RATES PER 1,000 OF THE POPULATION. INFANTILE DEATHS PER 1,000 BIRTHS.

Year	Births	Birth-rate	Net Deaths	Death-rate	Infants under 1 year Deaths	Death-rate
Average 1891-1900.	1,200	32.9	577	15.9	150	125.2
Average 1901-1910.	1,576	33.4	683	14.4	174	110.8
Average 1911-1920 <i>a</i> .	869	24.1	428	12.2	88	98.2
1921.	672	22.4	294	9.8	60	89.3.
1922.	643	21.2	345	11.4	48	74.6
1923.	664	21.08	320	10.1	48	72.3

a—By the Glasgow Boundaries Act, 1912, an area of 1706 acres, with a population of 28,490 was annexed by the City of Glasgow, which affected the statistics from 1st January, 1913.

PREVALENCE OF INFECTIOUS DISEASE.

The diseases included under this heading are classified in relation to notification, and are divided into two groups. Group I. includes diseases which are compulsorily notifiable (*a*) under the Notification Act, (*b*) by adoption under the Notification Act, and (*c*) by order of the Scottish Board of Health, and Group II. not compulsorily notifiable diseases. The diseases included in these groups are as follows :—

GROUP I.

(a)	(b)	(c)
Smallpox.	August, 1906.	1st August, 1912.
Diphtheria.	Cerebro-spinal Meningitis.	Pulmonary Tuberculosis.
Scarlet Fever.	24th October, 1912.	1st July, 1914.
Typhus Fever.	Ophthalmia Neonatorum.	All forms of Tuberculosis.
Enteric Fever.	Acute Poliomyelitis.	1st August, 1919.
Puerperal Fever.	Tetanus.	Malaria.
Erysipelas.	Anthrax.	Dysentery.
	Glanders.	Trench Fever.
	Actinomycosis.	Acute Primary Pneumonia.
		Acute Influenzal „
		20th July, 1923.
		*Chickenpox.

GROUP II.

Measles.	Mumps.	Ringworm.
German Measles.	Whooping Cough.	Scabies.
	Encephalitis Lethargica.	

* Made notifiable until 31st December, 1923.

Table D shows the number of cases of notifiable infectious disease occurring in each Parish during the year, and in the following paragraphs the prevalence and distribution of each disease is summarised.

All the outbreaks were carefully enquired into, and the usual recognised methods of investigation, isolation, and disinfection were carried out to control the spread of the disease.

TABLE D.—NUMBER OF CASES OF NOTIFIABLE INFECTIOUS DISEASE RECOGNISED IN EACH PARISH DURING 1923.

PARISH	Diphtheria	Scarlet Fever	Enteric Fever	Puerperal Fever	Erysipelas	Op. Neonatorum	Acute Primary Pneumonia	Influenzal Pneumonia	Pulmonar Tubercu	Non-Pulmonary Tuberculosis	Chickenpox	Cerebro-spinal Meningitis	Totals.
Glasgow (late Barony),	9	40	.....	2	6	5	11	2	13	13	16	3	120
Cadder,	21	52	1	2	12	7	29	3	20	11	12	1	171
Rutherglen,	5	6	1	2	7	5	8	2	11	17	18	1	83
Carmunnock,	1	1	.....	.....	1	.....	.....	.....	1	.....	.....	.....	4
	36	99	2	6	26	17	48	7	45	41	46	5	378

The number of visits of enquiry made by the Sanitary Inspectors and Nurse Health Visitors amounted to 1,686; intimations to parents and school teachers, 459; and 219 cases were removed to hospital. 164 apartments, 156 lots of bedding and clothing were disinfected, and 2 lots of bedding and clothing were destroyed.

In addition to the visits made to mothers and babies and to tuberculous patients, which constitute their principal duties, the Nurse Health Visitors also visit cases of certain infectious diseases, both notifiable and non-notifiable, and give advice in methods of nursing and carrying out of treatment. During the year 614 such visits were made, and the following summary shows the more important diseases for which these visits were made:—

Impetigo, - - -	137	Ophthalmia Neonatorum,	109
Ringworm, - - -	74	Pneumonia, - - -	58
Measles, - - -	35	Debility, - - -	56
Whooping Cough, -	27	Other Conditions, -	118

Smallpox.

No cases were notified during the year.

VACCINATION (SCOTLAND) ACT, 1907.—The Returns received from the Registrars shew that the number of statutory Declarations of Conscientious Objection to Vaccination amounted to 130, compared with 108 in the year 1922. Of this number 35 were in the registration district of Cadder East, 27 in Cadder West, 35 in Rutherglen, 20 in Shettleston, 6 in Possilpark, 3 in Garngadhill, 2 in Carmunnock and 1 in Maryhill. The proportion of Declarations for the whole district was 19 per cent. of the total births.

Diphtheria.

The following tabular statement shows the cases, deaths, and respective rates in quinquennial periods since 1892, and for the years 1921, 1922, and 1923.

Year	Numbers		Rates		Deaths per 10,000 Population
	Cases	Deaths	Deaths per 100 cases	Cases per 1000 Population	
Annual Average—					
1892-95, -	25.2	8.2	32.6	0.75	2.47
1896-1900, -	34.2	7.0	20.4	0.84	1.73
1901-05, -	48.6	6.6	13.5	1.1	1.5
1906-10, -	135.6	9.8	7.2	2.6	1.9
1911-15, -	92.	8.	8.6	2.3	1.9
1916-20, -	37.	4.	9.7	1.2	1.2
Year 1921, -	62.	4.	6.4	2.0	1.3
1922, -	56.	2.	3.6	1.8	0.6
1923, -	36.	3.	8.3	1.1	0.9

All the cases notified were removed to hospital. Six of the cases occurred in Robroyston Hospital, which institution is used by the City of Glasgow for the treatment of tuberculous patients. These cases were all removed to one of the City Fever Hospitals.

The monthly distribution throughout the year was as follows :—

Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
7	3	1	1	4	2	1	2	5	3	6	1

The age incidence of the cases and deaths was as follows :—

Ages,	-	-1	1-5	5-10	10-15	15-25	
Cases,	-	-	1	9	16	8	2
Deaths,	-	-	.....	1	2	.....	.....

While there has been a decline in the fatality rate which was most marked about the year 1906 when diphtheria antitoxin was introduced, there is cause for regret that the fatality rate should be so high. It is well known that when antitoxin has been administered in the early stages of the disease, there is every hope for a complete recovery.

The arrangements inaugurated in 1922 for a supply of anti-toxin to be available to Medical Practitioners at the Constabulary Stations of the District have been taken advantage of to some extent.

Scarlet Fever.

The following tabular statement shows the cases, deaths, and respective rates in quinquennial periods since 1892, and for the years 1921, 1922, and 1923.

Year	Numbers		Rates		
	Cases	Deaths	Deaths per 100 Cases	Cases per 1000 Population	Deaths per 10,000 Population
Average—					
1892-95, -	189	9	4.6	5.6	2.6
1896-1900,	245	10	4.0	6.0	2.4
1901-05, -	136	4	2.9	3.1	0.9
1906-10, -	224	6	2.7	4.4	1.2
1911-15, -	240	7	2.8	5.9	1.6
1916-20, -	63	1	1.2	2.1	0.2
Year 1921 -	77	0	.....	2.6	.....
1922, -	72	1	1.4	2.3	0.3
1923 -	99	0	.....	3.1	.....

Of the 99 cases notified, 84 were removed to hospital. Seven of the cases notified occurred in Robroyston Hospital and were treated in one of the City of Glasgow Fever Hospitals.

The monthly distribution of the cases was as follows:—

Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
16	11	8	7	6	2	4	5	10	5	18	7

The age incidence of the cases was as follows:—

Ages,	-1	1-5	5-10	10-15	15-25	25-45	45-65
Cases,	.....	18	36	20	15	9	1

Enteric Fever.

The following tabular statement shows the cases, deaths, and respective rates in quinquennial periods since 1892, and for the years 1921, 1922, and 1923.

	Numbers		Rates		Deaths per 10,000 population
	Cases.	Deaths.	Deaths per 100 cases	Cases per 1000 population	
Annual Average—					
1892-95, —	48	7	15.5	1.4	2.2
1896-1900	47	6	13.0	1.1	1.5
1901-05 —	40	5	13.3	0.9	1.2
1906-10, —	40	3	8.4	0.8	0.6
1911-15, —	10	2	19.2	0.2	0.5
1916-20, —	5	0.2	3.8	0.1	0.06
Year 1921, —	2	.....	.....	0.06	.....
1922, —	1	.....	.....	0.03	.....
1923, —	2	.....	.....	0.06	.....

It is very gratifying to note that no deaths have occurred from this disease since the year 1916 and that the number of cases also shows a considerable decrease in recent years.

During the year two cases were notified, both females. One, aged 50 years, was isolated and nursed at home. The other, a paper packer, aged 21 years, was removed to Lightburn Joint Hospital. Careful enquiry was made in this latter case as patient worked in a laundry, but the origin of infection could not be discovered. The widal reaction in the former case was negative till the 23rd day of illness. The second case was positive.

Illnesses suspicious of enteric fever, amongst the workers at Clydebridge Steel Works, were investigated, but on enquiry being made the illnesses were found to be due to other causes.

Cerebro-spinal Meningitis.

5 cases notified ; 1 death ; 4 removed to hospital ; one dying at home before removal.

Of the 4 cases removed to hospital, the diagnosis in 3 cases was confirmed by bacteriological examination, while in one case the diagnosis was altered to Meningitis (simple). One of the cases was transferred from the Royal Infirmary to Ruchill Hospital.

Erysipelas.

Cases, 26. Deaths, 2. Removed to hospital, 13.

Of the 13 cases removed to hospital, 5 were notified from Robroyston Hospital and treated in the City of Glasgow Hospitals.

Pneumonia.

Cases, 55. Deaths, 16.

The cases were thus described in the notifications:—Lobar-pneumonia, 10; broncho-pneumonia, 8; pneumonia (unqualified), 28; influenzal-pneumonia, 7; primary pneumonia, 1; pleuro-pneumonia, 1.

The age and sex-incidence of the cases were as follows:—

Ages,	-1	1-5	5-15	15-25	25-45	45-65
Males,	2	9	7	13	5	3
Females,	.....	6	4	.....	2	4

10 cases occurred during the first quarter of the year; 23 in the second; 10 in the third; and 12 in the fourth. The greatest number notified in one month was 11 in April.

With the exception of patients whose home conditions were such as to ensure suitable treatment, the cases were visited by the Nurse Health Visitors, and nursing advice and assistance given. In all 58 visits were made to 49 cases. 22 cases were removed to hospital, compared with 37 in the previous year.

Chickenpox.

This disease was made notifiable from 23rd July, 1923, until 31st December, 1923, by instructions of the Scottish Board of Health. During that period 46 cases were notified, 5 of whom were patients admitted suffering from other infectious diseases to Lightburn Hospital. During that part of the year prior to 23rd July, 14 cases were notified and dealt with by the Nurse Health Visitors.

Non-Notifiable Diseases.

The sources of information available to the Department regarding the prevalence of Measles, Whooping Cough, Mumps, Chickenpox, Ringworm, etc., are as follows:—(1) Information sent by Schoolmaster for the purposes of certification of scholars absent on account of infectious disease; (2) Applications made by School Authorities for closure of schools when the attendance is interfered with by epidemic prevalence; (3) Information obtained by the Nurse Health Visitors; and (4) the returns of death received from the local registrars. The deaths due to the various non-notifiable diseases are shown in Table B.

The following tabular statement shows the deaths registered from Measles and Whooping Cough, and the deaths per 10,000 of the population in quinquennial periods since 1892, and for the years 1921, 1922, and 1923.

	MEASLES.		WHOOPING-COUGH.	
	Deaths	Death-rate per 10,000 population	Deaths	Death-rate per 10,000 population
Annual Average—				
1892-95,	17	5.2	9	2.8
1896-1900,	25	6.2	21	5.3
1901-05,	21	4.8	28	6.3
1906-10,	23	4.5	27	5.4
1911-15,	12	3.0	14	3.4
1916-20,	6	2.0	8	2.6
Year 1921,	2	0.6	3	1.0
1922,	11	3.6	3	0.9
1923,	2	0.6	5	1.5

Measles.—The number of cases brought to the notice of the Public Health Department from various sources was 39, and 2 cases were removed to hospital. 35 visits were made by the Nurse Health Visitors, who gave advice as to the nursing of the disease and preventing the spread of infection.

Whooping Cough.—The number of cases brought to the notice of the Public Health Department was 27. 27 visits were made by the Nurse Health Visitors.

Schools.

No certificates for the closure of schools were given during the year. Owing to the prevalence of infectious disease in certain areas, it was found necessary to make several visits to schools for the purpose of examining scholars. In some instances children were excluded from school, and all necessary steps were taken to prevent the spread of infection.

Anthrax.

No outbreak of this disease in cattle was reported.

Foot and Mouth Disease.

There were eight outbreaks of this disease amongst cattle—5 in the Parish of Cadder, and 3 in the Parish of Glasgow. None of the persons in contact with the diseased animals was infected.

Venereal Diseases.

A joint scheme, including County Districts and the Burghs in the County, has been in operation since 1921, a whole-time V.D. Executive Officer being in charge. There are very few cases in this area. Patients receive treatment at the Centre at Lightburn Joint Hospital and any cases requiring residential treatment at the County Hospital, Motherwell. As the centres in the City of Glasgow are convenient to the area some patients also attend there.

Bacteriological Examinations.—During the year 93 specimens of blood were sent for examination to the County Bacteriological Laboratory. 19 of these were from the Lightburn Hospital treatment centre, and 74 from medical practitioners (including 44 from medical officers of institutions). 37 of the specimens were positive and 56 negative.

Hospitals.

The Annual Report by the Physician-Superintendent of Lightburn Joint Hospital is issued separately.

In addition to the cases treated in Lightburn Joint Hospital the following cases were treated in institutions within the City of Glasgow and in Motherwell.

Puerperal Fever,	—	1 case in Motherwell Hospital.
Erysipelas,	—	1 case in Ruchill Hospital.
Pneumonia,	—	1 case in Royal Infirmary.
a Cerebro-spinal Fever,		1 case in Ruchill Hospital.

a This case was diagnosed in Royal Infirmary and transferred to Ruchill.

Although situated in the Lower Ward area, Robroyston Hospital is a large institution belonging to the Corporation of Glasgow, and naturally any cases of acute infectious disease occurring there are treated in their own fever hospitals. The following cases occurred during the year:—Diphtheria, 6; Scarlet Fever, 7; Erysipelas, 5.

Tuberculosis.

The provision of institutional treatment for tuberculosis was commenced in 1905 and notification was then arranged for on a voluntary basis. In the year 1907 pulmonary tuberculosis was made compulsorily notifiable in this district under the Notification

Act, but was not made compulsorily notifiable throughout Scotland until 1st August, 1912. On 1st July, 1914, non-pulmonary tuberculosis was also made compulsorily notifiable throughout Scotland.

The following tabular statement shows a marked decline in the deaths from tuberculosis since the commencement of County administration, but owing to the annexations which have taken place it is not desirable to place too much reliance on these figures for the purpose of comparison as the composition of the population, especially the proportion of urban to rural, has changed considerably.

	PULMONARY.			NON-PULMONARY.		
	Cases Notified	Deaths Registered	Death-rate per 10,000 population	Cases Notified	Deaths Registered	Death-rate per 10,000 population
Annual Average—						
1891-95,	.....	42	12.8	.....	29	7.1
1896-1900,	.....	47	11.7	.....	29	6.8
1901-05,	.....	54	12.4	.....	33	7.2
1906-10,	65	57	11.3	.....	41	7.6
1911-15,	59	28	6.8	.....	24	5.8
1916-20,	42	22	7.3	31	11	3.5
Year—						
1921,	46	12	4.0	30	8	2.7
1922,	42	22	7.3	34	11	3.6
1923,	45	26	8.2	41	8	2.5

PULMONARY.

Mortality.—The deaths from pulmonary tuberculosis amounted to 26, giving a death-rate of 0.8 per thousand of the population. The deaths will be found classified according to Parish in Table B, and the age incidence will be found in Table C.

Deaths in relation to notification.—Of the 26 deaths registered, 24 were notified cases and the remaining 2 were deaths which occurred outwith the Lower Ward and were transferred to the district.

Of the 24 notified cases—1 was notified in 1919; 2 in 1921; 8 in 1922; and 13 in 1923. No less than 19 of the cases died within 6 months of notification, viz:—2 within a week 10 within three months, 5 within six months, and two were notified after death.

Notification.—The number of cases notified amounted to 45 and were classified as follows:—Definite (sputum positive) 19; definite (sputum negative), 15; suspect for observation, 2; altered diagnosis, 2; temporary resident, 6; and not visited, 1.

The *age incidence* of the cases notified was as follows:—

Ages,	—	—5	5—15	15—25	25—45	45—65	Total.
Cases,	—	.....	7	13	15	10	45

The occupations of the cases notified were—Scholars, 6; Housewives, 14; Steelworkers, 2; Coal Miners, 2; Nurses, 2; Domestic Servant, 1; Millworker, 1; Joiner, 1; Engineer, 1; Carting foreman, 1; Road surfaceman, 1; Civil Engineer, 1; Bookkeeper, 1; Railway Clerk, 1; Fur Cutter, 1; and no occupation, 9.

Housing Conditions of the Cases Notified.—Six of the cases lived in houses of one-apartment; 13 in two-apartment houses; 8 in three-apartment houses; 3 in four-apartment houses; 9 in houses of more than four apartments, and 6 in institutions.

Total Cases on Record.—At the beginning of the year there were 83 cases on the Register, and during the year 45 new cases were notified, making a total of 128 cases dealt with. Of the total dealt with, 26 died (24 from pulmonary tuberculosis and 2 from other causes); 4 left the district; in 2 instances the diagnosis was altered; and in 3 cases the names were removed from the list as the patients were resident in institutions. At the close of the year 90 cases remained on the Register.

Revised Diagnosis.—As stated above, the diagnosis of pulmonary tuberculosis was altered in 2 instances to chronic bronchitis.

Arrest or Cure of the Disease.—Of the 3 cases whose names were removed from the register for this reason, 1 was notified in 1920, 1 in 1922, and 1 in 1923.

NON-PULMONARY.

Mortality.—The deaths from non-pulmonary tuberculosis amounted to 8 (4 abdominal and 4 other tuberculosis) giving a death-rate of 0.25 per thousand of the population. The deaths will be found, classified according to Parish, in Table B, and the age incidence will be found in Table C.

Of the 8 deaths registered, 1 was not a notified case, while 1 was on the pulmonary list.

Notification.—The number of cases notified amounted to 41, and were classified as follows:—Glandular, 17; osseous or arthritic (including 1 spinal and 2 of hip-joint disease), 5; abdominal, 15; genito-urinary, 1; generalised, 3.

a One of these cases was also notified as suffering from Pulmonary Tuberculosis.

The *age incidence* of the cases notified was as follows:—

Ages, -	-5	5-15	15-25	25-45	Total.
Glandular, -	2	10	4	1	17
Abdominal, -	7	6	1	1	15
Other Forms,	2	4	3	.....	9

Total Cases on Record.—At the beginning of the year there were 89 cases on the Register, and during the year 41 new cases were notified, making a total of 130 cases dealt with. Of the total cases dealt with, 6 died; 5 left the district; in 2 cases the diagnosis was altered; and in one case the name was removed from the list as the disease was cured or permanently arrested, while 10 cases were removed from the list as they proved to be non-tubercular. At the close of the year 106 cases remained on the Register.

Revised Diagnosis.—Excluding patients who died, the diagnosis was altered in 2 instances, viz: Marasmus, 1; Gastro Enteritis, 1.

Arrest or Cure of the Disease.—The case removed from the Register was notified in 1922.

DOMICILIARY TREATMENT.—Cases of tuberculosis suitable for treatment at home are supervised by the Tuberculosis Officer and by the Nurse Health Visitors. The visits made by the latter during the year numbered 1,141—536 pulmonary and 605 non-pulmonary cases. In addition to a considerable number of patients who attended at the Child Welfare Centres and at the Public Health Offices in Glasgow, 43 cases visited Cambuslang Dispensary and made 97 attendances.

One shelter was in use throughout the year.

29 cases received additional nourishment in the form of milk, eggs and butcher meat. Malt and cod liver oil were also supplied to suitable cases.

Sanatoria.

Pavilion VI at Lightburn Joint Hospital is set aside for the treatment of tuberculosis cases from the Lower Ward area. In addition to this, cases are also treated at the various Middle Ward Sanatoria, and the following Table shows the number of patients in the various institutions during the year. The letter P—Pulmonary, and N.P.—Non-Pulmonary.

INSTITUTION		Remaining end of 1922	Admitted during 1923	Discharged during 1923	Died during 1923	Remaining end 1923
Lightburn,	{P.	8	37	27	7	11
	{N.P.	9	30	30	.....	9
Stonehouse,	N.P.	1	4	4	.....	1
Shotts,	P.	.....	1	1	.....	.....
Hairmyres,	{P.	3	7	6	.....	4
	{N.P.	1	3	3	.....	1
		22	82	71	7	26

The duration of residence in hospital of the cases dismissed in 1923 was as follows:—

Months,	1-3	3-6	6-9	9-12	12 and over
Pulmonary, -	31	9	.....	.....	1
Non-Pulmonary,	27	5	2	1	2

Bovine Tuberculosis.

The observation and investigation of bovine tuberculosis, especially in dairy stock, has since the year 1904 been the subject of veterinary inspection, and the detailed result of the work in the Lower Ward is here given.

Veterinary Inspection of Dairy Herds.—The records show that practically all the dairy herds in the Lower Ward were inspected. As on former occasions samples of milk were drawn from all udders, which, upon examination, showed conditions suspicious of tubercle. In this way 16 samples of milk were taken and sent to the bacteriological laboratory, where, after examination, 5 were found to contain tubercle bacilli.

In all positive cases certificates were granted by the County Veterinary Surgeon stating that the animal suffered from tubercle of the udder.

The procedure followed is for the Medical Officer of Health to send a notice to the owner of the animal directing his attention to the requirements of the Milk and Dairies (Amendment) Act, 1922, and special attention is directed to Section 5 of the Act.

At the same time it was suggested that the animal should be sent for slaughter, and the owner was requested to communicate with the Public Health Department advising as to how and when it was intended to dispose of the animal. This information is sometimes forthcoming, but in some cases it is necessary to send reminders.

In each of the five instances in which a sample of milk was found to contain tubercle bacilli the cow was sent for slaughter.

Cows with abnormal conditions of the udder other than tubercle were also recorded, and the results are as shown in the following table :—

TABLE SHOWING RESULTS OF VETERINARY INSPECTION.

PARISH.	COWS WITH ABNORMAL CONDITIONS OF UDDER.												
	Herds.	Cows.	Samples of Milk.	SUSPECTED TUBERCLE.				Tubercle.	Atrophy.	Mammitis.	Induration N.T.	Eruption of Teats.	Total.
				Result.									
				Smear		Biological.							
				+	-	+	-						
Cadder,	79	1771	3	.....	3	.....	.....	3	56	7	12	.....	78
Barony,	36	875	7	2	5	3	.....	7	26	2	5	3	43
Carm'n'ck,	27	911	6	3	3	3	3	9	57	10	8	2	86
Rutherglen,	6	81	.....	.....	.....	.....	.....	2	3	.....	2	...	7
Total,	148	3638	16	5	11	6	3	21	142	19	27	5	214

Refractories Industries (Silicosis) Scheme, 1919.

Under this scheme examinations are carried out every two years. The next examination, therefore, falls to be carried out next year.

MATERNITY AND CHILD WELFARE.

The number of **births** registered, corrected for transfers was 664, the birth-rate for the year being 21.08 per thousand of the population. Of the 664 births, 35 were illegitimate.

Notifications.—Practically all the births registered in the district were notified, and, in addition, 19 still-births were reported.

Table E. shows the births registered, births notified, visits made by the Nurse Health Visitors, the attendant at confinement as ascertained at the first visit, infant deaths registered, and the infantile death-rate, the information being tabulated according to registration districts.

Infantile Mortality.—The deaths of infants under 1 year numbered 48, giving an infant mortality rate of 72.3 per thousand births, as compared with 74.6 in the previous year.

Of the deaths, 28, or 58.3 per cent. were due to developmental causes which include, prematurity, convulsions, atrophy, etc. Of these 28 deaths, 22 or 78 per cent. occurred during the first four weeks of life.

Table E.

	BIRTHS		Notified Stillborn.	NUMBER OF VISITS.			ATTENDANT AT CONFINEMENT.			INFANT DEATHS. Rate per 1,000 Births	
	Regis- tered.	Alive.		First.	Subsequent.	Special.	Total.	Doctor.	Midwife.		Regis- tered.
Glasgow (late Barony)	- 169	127	2	107	582	16	705	45	63	17	35.5
Cadder,	- 377	369	13	350	1658	41	2049	209	156	25	52
Rutherglen,	- 104	104	3	100	634	51	785	34	69	5	10.5
Carmunnock,	- 14	8	1	8	21	3	32	9	...	1	2
Total,	- 664	608	19	565	2895	111	3571	296	288	48	100

Table F. shows the deaths arranged according to certain group causes and age periods.

TABLE F.—LOWER WARD DISTRICT.

Cause of Death.	AGE PERIODS.									
	WEEKS.					MONTHS.				TOTAL.
	-1	-2	-3	-4	Total.	1-3	-6	-9	-12	-1 yr.
I. Prematurity, -	11	.....	.....	1	12	.....	.....	..	.....	12
Congenital										
Malformations,		1	.....	.....	1	1	.....	.....	.....	2
Atelectasis, -	1	.....	.....	.....	1	.....	.....	.....	.....	1
Injury at Birth, 1	1	.....	.....	.....	2	.....	.....	.....	.....	2
II. Atrophy, Debility, and Marasmus, 7	2	1	.....	.....	10	2	1	1	1	15
III. Diarrhoea, -	.....	.....	.....	.....	.....	1	2	.....	2	5
Other Digestive										
Diseases, -	.....	.....	.....	.....	.....	.....	1	.....	.....	1
IV. Pneumonia, -	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Bronchitis, -	.....	.....	.....	.....	.....	1	1	.....	.....	2
Other Respiratory										
Diseases, -	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
V. Tuberculosis—										
Pulmonary, -	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Meningeal, -	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Abdominal, -	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Others, -	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
VI. Convulsions, -	.....	.....	.....	.....	.....	.....	1	.....	.....	1
Meningitis, -	.....	.....	.....	.....	.....	.....	1	1	.....	2
Other Nervous										
Diseases, -	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
VII. Measles, -	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Whooping Cough, .....	.....	.....	.....	.....	.....	.....	1	1	1	3
Diphtheria, -	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Scarlet Fever, -	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
VIII. Syphilis, -	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
IX. Violence, -	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
X. All other causes,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	20	4	1	1	26	5	8	4	5	48

Maternal Morbidity and Mortality.—Careful enquiry is now being made into all deaths that occur within four weeks of pregnancy with a view to ascertaining the causes of these deaths and considering what steps should be taken to prevent them. Four such deaths took place during the year, details of which are as follows :—

(1) A married woman, aged 32 years, was removed to Lightburn Hospital for Puerperal Fever following an Incomplete Abortion about the fifth month. She died in hospital after a month's residence, the cause of death being certified "Puerperal Fever, 6 weeks ; Acute Myocarditis, 2 weeks ; Pulmonary Oedema, 5 days."

(2) Aged 30 years. This woman died at home attended by a medical practitioner, the cause of death being certified as "Uncontrollable vomiting, 40 days ; Miscarriage, triplets, 7 days ; Toxic Myocarditis, 6 days."

(3) Aged 41 years. This woman died in a Nursing Home in Glasgow, the cause of death being certified to be "Placenta Praevia complicating pregnancy, 7 months ; collapse."

(4) Aged 39 years. This woman was admitted to the County Maternity Hospital, Bellshill, as an emergency case with Placenta Praevia, and was after one month's residence there transferred to Motherwell Hospital suffering from Septicaemia, where she died after six weeks' residence. The cause of death was certified to be "Puerperal Fever with Empyema on the right side."

Puerperal Fever.—6 cases were notified and removed to hospital, including the two deaths referred to above. In 3 instances a doctor was in attendance at the birth, and in 2 a midwife, while one case was confined in Bellshill Hospital.

Still-births.—Special visits of enquiry were made, and the records of 19 cases showed that the following conditions were noted as the probable cause :—

(a) *Affecting the Mother.*—Ante-partum haemorrhage, 2 ; hyperemesis, 1 ; albuminuria, 3 ; accident (indefinite), 4.

(b) *Affecting the child.*—Prolonged labour, 1 ; over-development, 1.

(c) In seven cases there was no known probable cause.

In 3 instances the foetus was stated to be macerated; in 1, abnormal in appearance; and in 15 normal in appearance.

In 14 instances the confinement was normal; in 2, prolonged and difficult; and in 3 forceps were used.

In each instance the mother was not otherwise employed than in her household duties.

In 7 cases the still-birth was the first pregnancy; in 2 the second; in 1 the fourth; in 2 the sixth; in 2 the seventh; in 1 the eighth; in 2 the ninth; in 1 the tenth; and in 1 the eleventh.

In 9 instances a doctor and a midwife were present at the confinement; in 6, a midwife alone; and in 4 the confinement took place in an institution.

Ophthalmia Neonatorum.—17 cases were notified, 7 being notified by doctors, 5 by midwives, and 5 by health visitors. In 4 instances a doctor attended at the confinement, and in 13, a midwife. No case was due to gonococcal infection, and in 14 instances the disease was reported to be slight, and in 3 severe. Two patients were removed to hospital. In no case did loss of vision result. Of the 17 cases bacteriological examination showed no gonococci and that other bacteria was the cause of the Ophthalmia.

Necessitous Cases.—The following scale of assistance was in operation during the year. Children under 2 years of age, nursing mothers, and expectant mothers, 1 pint Milk daily. The amount of assistance granted was governed by the following standards:—Where the weekly income per adult (children under 14 years of age counting as half adults) was less than 7/-, full assistance was given; if from 7/- to 8/6 per adult, half assistance; if over 8/6, no assistance. In addition, owing to illness or other exceptional circumstances, an allowance of milk was granted to a number of cases.

Forms showing the home and financial circumstances of the applicants are in use. These have proved of great assistance in checking the statements. No prosecutions were instituted, but false statements were dealt with by suspending assistance, and excellent results obtained.

Throughout the year 145 families were granted assistance, at an estimated cost of £225.

Child Welfare Centres.—The normal work of the Centres has been increased by the continued unemployment. It is again a pleasure to acknowledge the voluntary assistance of the lady members of the two Child Welfare Associations, and to know that their work is still being carried on.

	Year	Mothers	Children	Con- sultations	Lectures	Demon- strations.
Chryston,	1919.	1,123	609	210	10	36
	1920.	1,677	1,267	443	10	38
	1921.	1,413	958	303	7	29
	1922.	1,851	1,358	487	10	33
	1923.	1,747	1,596	430	11	37
Bishopbriggs,	1919.	1,260	926	282	10	38
	1920.	1,746	1,321	438	9	39
	1921.	1,688	1,041	379	7	30
	1922.	2,225	1,427	526	10	31
	1923.	2,128	1,745	487	10	37

Visitation.—The number of visits made by the three Nurse Health Visitors was 3,571, of which 565 were first visits and 3,006 revisits. These figures of course do not include the visits made by nurses to cases of infectious and contagious diseases, which are referred to on pages 9 and 18, and for the purpose of comparison with previous years, they should be read in conjunction with the paragraph on Necessitous Cases.

Hospital Admissions.—The Middle Ward hospital at Bellshill and Convalescent Home at Calderbank continued to grant facilities for the treatment of suitable cases.

19 mothers and 1 baby were treated in Bellshill and the conditions requiring removal were thus described:—Unsuitable home, 4; Incomplete Abortion, 3; Threatened Abortion, 2; Placenta Praevia, 2; Difficult Confinement, 2; Ventral Hernia, 1; Acute Phlebitis, 1; Ruptured Perineum, 1; Menorrhagia, 1; ante-natal treatment, 1; and 1 for observation and diagnosis.

20 mothers, 13 babies, and 5 children were treated in Calderbank Home. All of the mothers suffered from debility during pregnancy, following confinement, or after an operation. They

were all in necessitous circumstances and could not provide themselves with the rest they required. The results were excellent with the exception of two cases, one of whom was transferred to Lightburn suffering from Tuberculosis, while the other was admitted to the Royal Infirmary for observation and diagnosis.

Of the 5 children treated in Calderbank Home, 2 were suffering from rickets, 1 from debility, 1 was admitted with mother, while one was admitted during the absence of the mother in hospital. Two of these cases were diagnosed as Tuberculosis, both dying in hospital.

One mother suffering from neurasthenia and one child suffering from Tuberculosis were treated in Blantyre Hospital.

Three mothers were admitted to the ante-natal wards in the Royal Maternity Hospital, Glasgow, one on account of a previous difficult labour, one suffering from a contracted pelvis, and one was an abortion. In addition, 10 mothers from the district were admitted while in labour, all going in of their own accord.

GENERAL SANITATION.

Housing.

Details regarding the State-aided Housing Schemes are given in the report of the Sanitary Inspector, which contains a table showing the number of houses to be completed on the various sites and the progress that has been made. Of the 480 houses approved by the Board, 326 are completed, while the remaining 154 are in course of construction.

In addition to the Committee's Housing Schemes, plans were approved for the erection of the following houses to be built by private enterprise, viz :—180 two-apartment houses ; 29 three-apartments ; 16 four-apartments ; 21 five-apartments and over.

The plans for two-apartment houses which have been passed are for 80 houses at Jellyhill which were proposed to be erected by the Carron Coal Company and 100 houses at Robroyston by Messrs John Watson, Ltd. As the operations of the Carron Coal Company have ceased, there is no immediate prospect of the erection of these 80 houses being proceeded with. The houses at Robroyston are required in connection with a new colliery and they are likely to be proceeded with shortly. During the current year plans have been passed for additional houses.

Reference is made to overcrowding in certain localities in the Report of the Sanitary Inspector, especially in houses which are regarded as unfit for habitation. No doubt some of the worst cases of overcrowding could be avoided as there is sufficient income coming into the household to enable them to pay the rental asked for the new houses erected under the State-aided Housing Schemes, but in my opinion there is an urgent need for good two-apartment houses, with all modern conveniences, at a moderate rent. In order that the houses unfit for habitation can be dealt with the Committee will no doubt again consider the desirability of making some provision for the clearance of slum areas.

Water Supply.

The **Public Supplies** were satisfactory and adequate. Several extensions were carried out, and these are dealt with in the Report by the Sanitary Inspector.

The water supply at *Clydebridge Steel Works* is obtained from the ordinary domestic supply in the district which comes from Loch Katrine. As the River Clyde Water is also raised for industrial purposes it is accessible at a few points throughout the works, and there is a danger of workmen partaking of this water, although they have been warned not to do so. Owing to the occurrence of some illnesses amongst the workmen of an intestinal nature inspections were made, when it was found that certain of the workmen had been drinking the water as it comes from the Clyde, and notices were posted throughout the works warning them not to drink this water. A sample was taken for analysis and was certified by the Chemist to be quite unfit for drinking purposes.

Drainage and Sewage Disposal.

The information requested by the Scottish Board of Health in August, 1922, regarding the Prevention of Pollution of Rivers, including sewage discharges from special drainage districts was forwarded during the year under review.

The satisfactory disposal of sewage in rural areas is often a matter of great difficulty and there is a liability to create nuisance or pollute streams when irrigation is not available. The cost of extensive purification works entails such a heavy assessment that there is great difficulty in obviating cause for complaint. For example, at Glenboig inspections have been made and meetings held, but the matter is still under consideration.

Special Districts.

Barony.—Complaint was made by the City of Glasgow Authorities regarding the unsatisfactory sewage effluent from Westthorn sewage works discharging into the River Clyde and causing pollution. After a meeting of the three Authorities interested in the works, Lower and Middle Ward District Committees, and the Corporation of Glasgow, it was agreed that a joint report should be prepared by the Officials concerned, and careful consideration given to the question of altering and adapting the works to Activated Sludge Methods of Sewage Treatment.

The whole matter has been reported upon during the current year.

Bishopbriggs and Auchinairn.—Reference was made in last year's report to the purification works in this district being very badly affected by underground workings and the inadvisability of constructing new works on the present site. In August, 1923, a report was received from the Engineers, suggesting that new works on the Activated Sludge principle be provided on a new site and that the drainage district should be extended to include Jellyhill. This report was approved of and the work is being proceeded with during the current year.

Special Districts.

The usual table shewing the special districts in the Lower Ward for the purposes of water supply, drainage and sewage disposal, scavenging, and lighting, will be found in the Report of the Sanitary Inspector.

Dairies.

The Veterinary Inspection of Dairy Herds carried out by the County Veterinary Inspector is dealt with under the heading "Bovine Tuberculosis" in an earlier portion of this report.

Offensive Businesses.

The two Tallow Melting businesses at Carntyne have now been taken over by the same licensee and are being conducted satisfactorily.

The Soap Manufactory and Soap Boiling business at Bishopbriggs has been carried on without complaint.

The Fish Meal and Manure manufactory at Downiebrae Road, Rutherglen, has been carried out under the strict supervision of the sanitary staff and no cause for serious complaint was received, although one or two minor defects received attention. There is no doubt that with the improved plant now at the disposal of the firm this business can be carried on satisfactorily, but great care is needed in the handling of the raw material so as to avoid unpleasant odours escaping.

The **Sale of Food and Drugs Acts** and the **Rivers Pollution Prevention Acts** are administered by the County Council, and details of the work done during the year will be found in the County Report.

COUNTY OF LANARK.

DISTRICT OF THE LOWER WARD.

(AREA, 24,643 ACRES.)

Report by the Sanitary Inspector

FOR THE YEAR 1923.

HOUSING.

Relative to the circular letter of 18th August, 1922, from the Scottish Board of Health, with regard to the improvement of insanitary areas, in connection with which the Government of the day had decided to give a grant of £30,000 per annum in aid of expenditure incurred by Local Authorities in Scotland, a report was prepared and considered by the Sub-Committee on Public Health at a meeting on 22nd January, 1923.

The report submitted contained a detailed list of one and two apartment houses situated in eight different areas or localities within the district of the Lower Ward, which are considered to be in such a state, structurally and otherwise, as to render them unfit for human habitation, and emphasising the necessity of a re-housing scheme, whether it may be by improving or reconstructing existing houses where practicable or expedient, or the provision of new houses of a type suitable to the reasonable requirements of the people to be re-housed, and let at a rental that they may without difficulty be expected to pay.

The 480 houses comprising the District Committee's modified Housing Schemes, consisting of 332 three-apartment and 148 four-apartment houses, erected in ten different localities throughout the district and now nearing completion, were originally intended to take the place of a number of the houses appearing on the list of houses which should be closed as unfit for human habitation,

but the cost of construction and the rentals insisted on put them entirely outwith the reach of those they were intended to re-house, with the result that the housing problem in this respect has not yet been solved. Conditions have not improved since 1914, when the Housing Schemes were first under consideration, but rather the reverse: the buildings have deteriorated, overcrowding has increased, and in many instances the people are living under conditions that are not only detrimental to their own health but a menace to the health and wellbeing of the community among which they reside.

In the eight localities referred to there appears on the list of houses annexed to the report submitted a total of 323 one-apartment and 456 two-apartment houses, all of which are, in their present state, considered to be uninhabitable and the majority of them should be closed and demolished. The one-apartment houses are generally of very limited capacity and serious overcrowding exists, and many of the so-called two-apartment houses are not of sufficient superficial area to form one decent-sized room, and in most cases overcrowding exists to an extent greater than in the single-apartment house.

The following examples with regard to **overcrowding** may be of interest as showing the deplorable conditions under which many of the occupants of the houses referred to are living, and the urgent need there is of relieving such conditions by the provision of housing accommodation giving a reasonable standard of cubic space capable of housing the average sized working class family without the risk of overcrowding, and that, in my opinion, can be obtained in a house of two apartments properly constructed, well lighted and ventilated and provided with all necessary sanitary conveniences, notwithstanding all that has been, or may be, said to the contrary.

No. 1 Area.—Out of a total of 42 one and two apartment houses, recently inspected, 17 were found to be overcrowded to the extent of from 1 to 4 adults, the total extent of overcrowding over the 17 houses being equal to 26 adults.

No. 2 Area.—Of 28 houses forming a block of back-to-back houses, 19 were overcrowded to the extent of from 1 to 7 adults, the total extent of overcrowding over the 19 houses being equal to 48 adults. In this property there are several serious cases,

including $9\frac{1}{2}$ adults in a single apartment, comprising a husband and wife, two boys 11 and 3 years of age, a girl of 2 years, who all sleep in one bed—4 males, ages 22, 18, 16 and 12 years occupy another bed, and a girl of 14 lies on a shake-down on the floor. In another one-apartment house there are husband and wife, a boy of 18 years and 2 girls of 6 and 4 years who occupy one bed, and in another bed 4 females, aged 19, 17, 12 and 10 respectively, are huddled together. Many instances of a like nature could be mentioned even to the extent of as many as 14 persons living in a single apartment.

No. 3 Area.—Of 17 one-apartment houses 13 were found overcrowded to the extent of from 1 to $2\frac{1}{2}$ adults, the excess over the 17 houses equalling $20\frac{1}{2}$ adults. Of 51 two-apartment houses comprising part of the same property, 41 were overcrowded to the extent of from 1 to 6 adults, the number in excess of the cubic capacity of the 41 houses equalling 93 adults. There are also 3 houses of 3 small apartments in the property, all of which are in an overcrowded state. It will be observed from the above figures that there are living in the 71 houses comprising this property a population equal to 120 adults in excess of the accommodation, which has been calculated on a basis of 400 cubic feet per adult person, without deduction for furniture, etc.

No. 4 Area.—Property comprising 16 one apartments and 17 two apartment houses. Of the 33 houses overcrowding was found to exist in 21, to the extent of from 1 to $4\frac{1}{2}$ adults, the total in excess over all being equal to $39\frac{1}{2}$ adults.

These cases may be taken as indicating generally the conditions prevailing in the eight areas dealt with in the report referred to, and to which the Committee on Public Health gave careful consideration, but having regard to the heavy burden which would be put upon the local rates as a result of the great expense involved in carrying out any scheme for the improvement of insanitary areas, as indicated in the Board of Health's circular, the Public Health Committee were of opinion that the District Committee could not undertake the initiation and carrying out of a scheme for the provision of some 800 two-apartment houses with modern sanitary conveniences, which are required to permit of the clearing away of existing insanitary dwellings. Notwithstanding the Committee's decision provision should be made to deal with a

number of the worst cases, such as those situated in the Areas of Lambhill, Bishopbriggs, Auchinairn, Garnkirk and Chryston, and in the Farme and Eastfield areas of Rutherglen, where 375 families are urgently in need of better houses, and I trust that the matter will be reconsidered and a favourable decision arrived at.

HOUSING, TOWN PLANNING, &C. (SCOTLAND) ACT, 1909.—For the purposes of Section 17 of the Act, inspections were made of 39 dwelling houses, 15 of which were considered to be in a state so dangerous or injurious to health as to render them unfit for human habitation. Repairs were carried out by the owners of 6 houses, 2 houses were closed voluntarily, 1 of which was demolished.

Secondary inspections were made of 49 one-apartment houses, previously reported on and still occupied. These houses known as Lochfaulds Rows, near Lambhill, are samples of the worst conditions in the district and should be closed.

HOUSING, TOWN PLANNING, &C. (SCOTLAND) ACT, 1919.—Notices in terms of Section 25 (1) of this Act were served on the owners of 11 dwelling houses, considered not in all respects reasonably fit for human habitation, and the requirements specified in the notices were given effect to in 10 cases, by the owners, 1 case being still in the hands of the tradesmen.

2 Notices were served under Section 40 (1) to provide dwelling-houses with water supply, and the requirements were complied with by the owner in one case, the other is still pending.

48 Intimations were given under Section 41 (2) as to insufficient water-closet accommodation, and the requirements were complied with by the owners in 26 cases, including cases outstanding at the end of the previous year. Of the 46 cases still pending at the close of the year 17 had been arranged for.

The number of houses of two apartments for which plans were lodged, and for the erection of which the consent of the Local Authority has been given, in terms of Section 44 (1) is 180. These are houses proposed to be erected by Colliery Owners and the Owners of a large Iron Work, for the accommodation of their workers. The houses, as indicated by the plans approved, comply with the requirement of the Housing Act of 1923, as to superficial

area, and are eligible for the subsidy offered by the District Committee to private enterprise, for the provision of houses of the size referred to, and application has, I understand, been made for same.

STATE-AIDED HOUSING SCHEMES.—The District Committee's Housing Schemes at Millerston, Auchinairn, Bishopbriggs, Eastfield and Carmunnock, are now completed and the houses occupied. Those at Gartcosh, Chryston, Garnkirk and Stepps, are nearing completion, and 16 of these are also about ready for occupancy.

The following table shows the number and size of the houses in each of the areas mentioned, together with particulars of cost and rents fixed.

HOUSING SCHEMES.—Statement as at 31st December, 1923.

PARISH.	SITE.	Number of Houses to be built.	In course of construction.	Houses completed.	Houses Let.	Apartments.		Rents.	Average cost per House per accepted Tender.	Remarks.
						3	4			
Glasgow (late Barony)	Lambhill	72	72	.....	.....	48	24	£28 £32	*£818 9 0	*24 nearing completion, Applicable to 24 houses only.
Do.	Millerston	76	.....	76	76	56	20	"	£826 3 0	
Cadder	Auchinairn	48	.....	48	48	36	12	"	£818 9 0	
Do.	Bishopbriggs	76	.....	76	76	48	28	"	£1,011 (3 Apts.)	
Do.	Chryston	14	14	.....	.....	8	6	"	£850 (4 Apts.)	
Do.	Garnkirk	24	24	.....	.....	16	8	"	£478 0 0	Nearing completion. do.
Do.	Gartcosh	28	28	.....	.....	20	8	"	£489 0 0	do.
Do.	Stepps	16	16	.....	.....	12	4	"	£480 0 0	do.
Rutherglen	Eastfield	102	.....	102	102	72	30	"	£801 7 0	
Carmunnock	Carmunnock	24	.....	24	24	16	8	"	£827 18 0	
Total		480	154	326	326	332	148			

* The average cost of Houses is exclusive of cost of land, professional charges, roads, and sewers, etc.

Lambhill Rentals still under consideration by Board of Health.

BUILDING BY-LAWS.—The number of plans lodged and approved was 62, as compared with 45 in the previous year. The number and size of the houses shown on the plans lodged were as follows: 180 of two apartments, 77 houses of three apartments (48 of which are part of the District Committee's Housing Schemes), 40 of four apartments (24 of which are part of the Housing Schemes), 21 houses of five apartments, 18 houses of six apartments and over, including one house of ten apartments. The total number of houses for which plans were approved was thus 336, as compared with 148 the previous year—264 houses out of the total to be built by private enterprise. The plans submitted and approved showed that all the houses were to be provided with Bathroom, Water-Closet, Scullery or Scullery-washhouse, Larder and other necessary conveniences. Other plans submitted related to the erection of Single and Double Shops, Workshops, Garages, Offices, Halls and Saloons, Golf Pavilions, Tearooms, and alterations and additions to existing dwelling-houses, including the following:—

Alteration of a mansion into 2 houses of three and four apartments, bathrooms, w.c's, two apartment offices, store, workmen's dining room and scullery, and 2 lavatories.

Addition to existing house of two storey wing, comprising three apartments and conveniences, attic-bedroom and lavatory, also bedroom and bathroom with w.c. over garage.

Temporary annex as additional classroom at Lochfaulds School.

Bathroom and lavatories, containing 30 shower baths, 63 wash-hand basins, 2 water-closets at Mossbank Industrial School for boys.

Single shops, 7; Double shops, 2; Workshops, 1; Offices, 3; Halls, 2; Pavilions, 3; Tea-rooms, 1; Workroom, 1; Dining-room, 1; Clinic, 1; Garages, 23; Stables, 2; and Piggery, 1.

In administering the Building By-Laws the Inspector of Buildings reports that 43 visits of inquiry were made regarding plans lodged and 610 inspections were made during the progress of construction or alteration of houses or other buildings, and that in connection with sites, formation of roads, and the progress of works, etc., relative to the District Committee's Housing Schemes, 1268 visits were made.

191 applications of the smoke test were made to the drains and plumber work of 156 properties. 275 houses, 1 shop, 12 workshops, halls, offices, pavilions, garages, and alterations and additions, including houses in connection with Housing Schemes, were passed for occupancy.

WATER SUPPLY.

The areas in the Lower Ward as detailed in previous reports, and for which the Corporation of Glasgow are directly responsible, continue, with one or two exceptions where the pressure is at times rather poor, to be well supplied, and there have been no complaints.

Cadder Special District.—During the year several important extensions, enlargements and duplications of the mains have been carried through at considerable cost, and with appreciable improvement as regards pressure and a general improvement in the supply throughout the whole of the Special District, and include the following :—

Northern Section.—Laying of an additional 6-inch main from Lochfaulds along the northern bank of the Forth and Clyde Canal to Cadder Bridge, a distance of 4100 yards, at an estimated cost of £3,960, in respect of which the Unemployment Grants Committee had agreed to give a grant of 65% of the interest and sinking fund charges on the cost of the work for 15 years. A 5-inch main in Saughs Road, Robroyston, at an estimated cost of £675. Length, 720 yards. A 4-inch main in Robroyston Road—230 yards—estimated cost £180.

Southern Section.—The extension of the 10-inch main in Cumbernauld Road, from Stepps to Chryston, at an estimated cost of £5,070. A grant has also been obtained in connection with this work.

Other small extensions carried out were a new main in proposed road at Gartcosh Housing Site, and an extension of the main in Cardowan Drive, Stepps.

Considerable development in the building of dwelling-houses of the villa and cottage type has been going on in the Burnside and Cathkin areas of Rutherglen Parish, and a portion of this

area is being provided with a water supply by the Middle Ward District Committee, who have already carried out some extension of their mains.

A number of the houses on the higher levels at Burnside, outwith the Glasgow Corporation supply, have all along been supplied from a private source on the lands of Fernhill, and application was made during the year by the owners of Fernhill to the District Committee, requesting them to take over the private supply, presumably with a view to its development for the benefit of this part of the district, but the Committee have declined to entertain the proposal.

A report was submitted relative to an application for a water supply to grazing lands on the Estate of Larchgrove, and Springboig Farm, by means of a watering trough. The Committee, however, considered that the matter was one for the applicant himself and declined to bear the expense involved.

DRAINAGE.

SPECIAL DRAINAGE DISTRICTS.

Barony.—The sewers in this district continue in good working order, and there is nothing special to report.

In view of the proposed extension of the Glasgow Corporation Tramways from Millerston to Stepps, a report was submitted suggesting that the sewer in Cumbernauld Road should be extended eastwards to the eastern boundary of the Barony Drainage District, a distance of 390 yards, before the tram rails were laid, the estimated cost of a 12-inch pipe sewer being £460, but in view of the fact that, in the opinion of the Drainage Committee, there was no immediate demand for an extension agreed to take no action in the matter in the meantime.

Westthorn Sewage Purification Works.—These works while situated within the boundaries of the City of Glasgow are, in terms of the Glasgow Corporation Extension of Boundaries Act, 1912, under the control and management of the District Committee.

During the summer months complaint was made by the City Authorities as to the unsatisfactory sewage effluent from these

works discharging into and causing pollution of the River Clyde. Considerable correspondence took place with regard to this matter and also with regard to the condition of the main sewer leading to the works, a portion of which had evidently subsided, causing crude sewage to continually discharge into the River by a storm overflow.

A meeting of representatives of the Middle Ward District Committee, the Lower Ward, and the Corporation of Glasgow, along with the Officials, was held on 27th June, in the City Chambers, under the Chairmanship of Councillor Thomson, who, after the correspondence that had taken place was read, expressed the view of the Corporation Committee that they were very desirous of preventing as far as possible the pollution of the River Clyde, with this object in view they were met to consider whether alterations or improvements might be carried out at Westthorn Sewage Works, so as to produce a better effluent than at present.

During an expression of views by members of the two District Committees, to the effect that they are desirous of co-operating with the Corporation regarding improvements on the works, it was pointed out that the site of the works had been subject to subsidence owing to mineral operations, and it was not considered advisable for either of the Authorities interested to incur expenditure further than was actually necessary until the subsidence had ceased. It was, therefore, unanimously agreed that the Officials of the three Authorities interested in the works should prepare, and submit to a future conference, a joint report, setting forth what, in their opinion, is required to put the works in a condition to produce a satisfactory effluent, with an estimate of the cost involved.

The Officials met afterwards and agreed to request Messrs Warren & Stuart, C.E.,—Engineers to the Lower Ward District Committee—who designed and carried through the construction of the works, to prepare the report, and the matter is presently in their hands.

The settling tanks at the works and a portion of the main sewer were cleaned out twice during the year, and repaired where necessary.

Rutherglen (Landward).—The main outfall or joint intercepting sewer along the banks of the River Clyde and in Downiebrae Road, has been found to be considerably silted up and requires to be cleaned out. This matter has been reported to the Committee's Engineers, in order that they may get the sanction of the Joint Sewer Committee to have this done, otherwise the sewers in this Special Drainage District appear to be in good working order.

An extension eastwards for 50 yards of the sewer in Cambuslang Road, was carried out at a cost of £115 10s. 2d., to provide drainage facilities for a dwelling-house and garage in course of construction.

A storm overflow on a sewer on the east side of Clyde Paper Works was discovered to be continually discharging into the River Clyde, and had to be altered so as to prevent as far as possible the pollution of the River, but owing to the limited capacity of the sewers and other circumstances this has not been entirely obviated.

Application was made by the owners of Clydebridge Steel Works, for permission to drain surface and subsoil water from the football field in connection with the works into the sewer adjoining the field, but this was refused.

Building operations are in progress in the Burnside area, and sanction has been given by the District Committee to the construction of several new sewers, by the owners of the lands on which feuing is taking place, or by the feuars themselves. The sewers are being laid according to plans and sections approved by the Committee, and at the sight and to the satisfaction of an Inspector, appointed by the Committee but paid by the parties constructing the sewers.

Applications have been made for drainage facilities for houses proposed to be erected at Burnside, but in the Middle Ward District; but owing to the limited capacity of the sewers in the Burnside area, and the developments going on in the Lower Ward area, which have first claim and have to be provided for, the applications had to be refused.

4 connections were made to the sewers in this Drainage District during the year.

Bishopbriggs and Auchinairn.—A serious chokage was discovered in the month of December, in a sewer in Kenmure Avenue, causing a holding up of the drains of tenement buildings and causing some flooding. The chokage was found to be due to a dustpan having dropped from a manhole frame, and had been carried into the sewer. Some difficulty was experienced in locating the cause and its ultimate removal; otherwise the sewers, which have since been examined, and the dustpans cleaned out, are in good working order.

6 connections were made during the year.

The settling tanks at the sewage works were cleaned out twice during the year.

The construction of the 9-inch pipe sewer from Springfield Road, Bishopbriggs, to intercept the sewage from Old Auchinairn, formerly discharging into the Bishopbriggs burn, was carried out at a cost of £1,163, or £362 in excess of the tender accepted, owing to the presence of rock in unexpected quantity, thus removing a long-standing and serious nuisance.

Reference was made in last year's report to the question of reconstructing the sewage works on the present site as being injudicious, owing to the risk of further disturbance of the surface by mineral operations.

A report, dated 23rd August, by Messrs Warren & Stuart, C.E., was submitted to a meeting of the Drainage Committee on 31st August, suggesting that the present sewage works be abandoned, and that new works, on the activated sludge principle, be provided further down the stream and on a site that would permit of the dwelling-houses at Jellyhill (presently discharging into the stream referred to) being dealt with, and in connection therewith suggesting an extension of the Drainage District, to include Jellyhill, with relative estimates of cost and probable rate of assessment involved. The Committee having considered the report and having been afforded further information as to the success of the activated sludge principle, in operation in works which had been inspected in England, agreed to recommend the District Committee to authorise the provision of new sewage works for Bishopbriggs, on the principle suggested, in substitution for the existing works, which have been seriously damaged by

mineral workings, at an estimated cost of £13,600, provided a grant is obtained from the Unemployment Grants Committee of 65% of the loan charges for a period of 15 years.

The District Committee at a meeting on 3rd September, having approved of the foregoing recommendation, remitted the matter back with powers to the Drainage Committee to carry out the work subject to a grant being obtained.

At a meeting of the Drainage Committee on 17th December, it was intimated that a grant of 65% of the interest and sinking fund charges had been obtained on condition *inter alia*, that the work under the scheme is actively commenced by 31st December, and will be completed within twelve months from the date of commencement. In view of the arrangements required to be made for wayleaves for sewers, and other preliminary matters, including the obtaining of tenders, it was decided to make application to the Unemployment Grants Committee for an extension of time for actively commencing the work till the end of February.

The new outfall sewer to be constructed and the sewage works will serve an area to the north of the present Drainage District, and the boundaries are to be extended accordingly. The work will be carried out by contract, and I may add that since the close of the year the tender of Mr F. J. C. Lilley, Contractor, who carried out the work in connection with Gartcosh Drainage Scheme, has been accepted, and that a start has been made with the laying of the 24-inch outfall sewer.

Steps.—The existing sewers in this Drainage District have given no trouble during the year, but an inspection of the man-holes on the line of the sewers and the cleaning out of the dustpans connected therewith, should be carried out and for this purpose I have recommended the employment of two men for a short time to do this work.

In view of building operations about to be commenced, and the likelihood of further feuing of vacant ground fronting Victoria Road, I have recommended the construction of a 9-inch pipe sewer in Victoria Avenue, to connect with the main outfall sewer and extending to 380 yards, at an estimated cost of £226. The sewer will be available for the draining of existing houses

in Victoria Road, presently draining to an old sewer laid years ago by the owners of Garnkirk Estate. This extension of the drainage system has been authorised and will be carried out shortly.

A report was prepared and submitted to the Drainage Committee, relative to a suggestion by the owners of Garnkirk Estate that, in view of the extension of the Glasgow Corporation Tramways to Stepps, the sewer in Cumbernauld Road should be extended westwards to the boundary of the Estate, which is also the Parish boundary, and the western boundary of Stepps Drainage District where it crosses the Cumbernauld Road. It was pointed out that the existing 9-inch sewer would require to be extended a distance of 270 yards, at an estimated cost of £150, and that this could best be done before the laying of the tramways in order to avoid opening up the roadway at some future time. The Committee, however, resolved not to lay the sewer, having regard to the fact that there was no immediate necessity and no appearance of development in the near future, but adopted the alternative suggestion contained in my report that, if the owner of Garnkirk Estate cared to construct the sewer, subject to the usual conditions of the District Committee, they would be prepared to recommend that the sewer be taken over as a public sewer when the drainage assessment from subjects draining to it is sufficient to warrant them doing so.

The sewage works have been maintained in good order, the settling tanks were cleaned out twice during the year, and a new tool house has been provided at the works.

Eight connections were made to the sewers for the drainage of houses in course of construction.

Chryston and Muirhead.—The sewers in this Drainage District have been maintained in good working order. 3 manholes on the sewer leading into the sewage works at Bridgend were sealed up on account of complaints as to offensive smells coming from them, and a storm overflow on the same sewer, which was also complained of as causing pollution of the Bothlyn burn, was fitted with a baffle to prevent unnecessary overflow.

The 9-inch pipe laid in the ditch along the north side of Drumcavil Road, together with the culvert in the road, and

referred to in my last report, has been discarded and a new 9-inch sewer has been laid in the roadway from the sewage tank to the Bothlyn burn, where it discharges, a distance of 1,027 yards or thereby, the tender of Mr David Gibson, Contractor, amounting to £569 17s. 3d., having been accepted. A great improvement has been effected by the laying of this sewer and there should be no further cause for complaint.

Alterations on the sewage tank at Moodiesburn were carried out in order to provide better facilities for cleaning the tank.

*The sewage works at Bridgend have been kept in good order, the tanks were cleaned out twice during the year, and the tanks at Drumcavil Road and at Moodiesburn were cleaned once during the same period.

Six house drain connections were made to the sewers, and one connecting a new sewer constructed in Woodhead Road, for the drainage of the Garnkirk Housing Scheme.

Carmunnock.—The boundaries of this Drainage District were altered and enlarged by the inclusion of an area lying northwest of the existing boundaries, and embracing a portion of the site of the Committee's Housing Scheme.

An extension of the 9-inch sewer from the Cross to the Old Post Office, to provide for the drainage of a property known as Drummond Place, and the Old Post Office referred to, the alteration and improvement of several manholes on the existing sewers and other relative works, including the reconstruction of the drains of two properties, was authorised by the District Committee, and carried out at a cost of £189 12s. 2d., including Engineering fees and contingencies, thus removing the pollution of Padmire burn above the sewage works, which had been a source of complaint.

Attention was directed to the condition of a drain carrying surface and subsoil water from the lands of Gallowhill, which had burst and caused flooding on Windlaw Road. The necessary repairs were carried out by the owners.

The continued unsatisfactory condition of the sewage works, due principally to want of proper or regular attention, was the cause of some further correspondence between the Sanitary

Department and the Committee, through their Clerk. The difficulty, however, was got over by the resignation of the Attendant, and the appointment of another man in his place, who, the Committee decided, should be under the direct supervision and guidance of the Sanitary Inspector or his Assistant. Since this arrangement was made there has been a marked improvement at the works.

The sewage tanks were cleaned out once during the year. A slight chokage occurred on the outfall sewer at Padmire, which was cleared on the matter being reported to the Clerk.

The number of connections made to the sewers during the year was 6.

South Lenzie.—The sewers in this Drainage District are the property of, and are under the charge of the Commissioners of the Burgh of Kirkintilloch, and there is nothing special to report.

Gartcosh.—As stated in my report for last year the District Committee had obtained a grant towards the redemption of interest and sinking fund charges. They are also indebted to Messrs Smith & M'Lean, Ltd., through whose land sewers had to be laid, for free wayleaves, as also for a proportion of the cost of the sewers and sewage purification works.

Tenders being invited for the construction of the necessary sewers, sewage works and road of access, that of Mr F. J. C. Lilley, Contractor, amounting to £3,123 1s. 7d., being the lowest, was accepted. The work was commenced early in the year and completed and in operation by September. All the properties in the district, with one exception, for which the sewers are available, including those draining to old sewers forming a part of the drainage scheme, have been linked up, the drainage systems of several properties belonging to Messrs Smith & M'Lean having to be reconstructed for this purpose.

The two sewage tanks, formerly in use on the lands of Messrs Tait's Trustees, have been put out of use and filled up.

The number of connections to the sewers, for which permits were granted, was 5.

In connection with the drainage of Glenboig, with the conse-

quent pollution of the Garnqueen burn, two or three meetings of the joint Committee of the Middle and Lower Wards were held during the year, but the drainage scheme suggested by the Engineers has not yet materialised, owing to the still heavy cost involved, the low assessable valuation and the high drainage rate required, but in order to avoid, as far as possible, pollution of the Garnqueen burn until such time as it was found practicable to carry out a drainage scheme, the Sanitary Inspectors of both districts were instructed to see that the properties draining to the burn are provided with suitable and efficient cesspools, and this has been done so far as the Lower Ward area is concerned.

LIGHTING.

SPECIAL DISTRICTS.

During the year the boundaries of the Lambhill Special Lighting District were altered and enlarged by the inclusion of an area lying to the west of the existing boundaries, and embracing the site of the District Committee's Housing Scheme, and an area lying on the east of the existing boundaries, where building developments have been in progress.

The village of Glenboig, partly within the Parish of Cadder and the Lower Ward District, and partly within the Middle Ward District of the County, has been formed into a Special District for Lighting purposes, the District Committee having approved of a resolution to that effect, so far as relating to the area within the Parish of Cadder and the Lower Ward, at a special meeting on 20th August, 1923. A joint Committee has been appointed to make arrangements for lighting the village, which, I understand, is to be by electricity.

SCAVENGING.

SPECIAL DISTRICTS.

There are at present 8 Special Scavenging Districts in the Lower Ward. During the year the village of Lambhill, embracing areas on the Estates of Possil, Over Possil and Milton, was formed into a Special District for scavenging purposes, the boundaries being made coincident with that of the extended Lighting District.

The work of collecting and removing the household refuse commenced on 1st October, and has since been carried out by Contract quite satisfactorily, a weekly removal having been arranged for. This arrangement, together with the retention of a man to attend daily to the cleansing of back courts, etc., has effected a much desired improvement in the sanitary condition of the village. Ashpits have been abolished and dustbins provided.

North Shettleston.—The collection and removal of the refuse is in daily operation in this district, and has been satisfactorily carried out during the year. The cleansing of back courts, private streets and lanes in the district is attended to by the man employed by the Committee in connection with the scavenging.

The estimated quantity of household refuse collected and removed to the Glasgow Corporation Destructor at Haghill was 496 tons 17 cwts., and 22 tons 10 cwts of mud and sweepings was deposited in the coup at Tollcross.

The two dust-floats, the property of the Committee, have been maintained in good order.

Several of the back courts at tenement property, and portions of private streets in this district, for the maintenance of which property owners are responsible, are badly in need of repair, but the owners when appealed to state that, as they are receiving little or no rent from their tenants, they have no money for this purpose.

Rutherglen.—The Contract for the cleansing of this district again changed hands at 15th May, and at a much less sum than under the former Contract, with the result that, while the work was better attended to than by the previous Contractor during the Summer months, on the approach of Winter, when the quantity of refuse to be dealt with usually increases and when the Committee's new houses at Eastfield came to be fully occupied, the Contractor found himself unable to do the work with the usual staff and had as a result to put on an extra horse and man, on different occasions, when complaint was made by the Sanitary Inspector.

There have been several different Contractors during recent years in this district, some doing the work satisfactorily, others

undertaking it at a price that they afterwards find is too low, with the result that the work is not done and the people in the district, as well as officials, have to suffer as a consequence.

I am pleased, however, to be able to report a marked improvement in the sanitary conditions of the district since the appointment of a man to attend to the cleansing of back courts, etc.

During the year 1030 tons 2 cwts. of refuse was collected and delivered at the Destructor Works at Cambuslang.

As a result of communications received by the District Clerk, as to the condition of certain private roads or streets in the Burnside area, special inspections were made of all the private roads in the district, and a report submitted to the effect that all the roads, with the exception of portions of Burnside Road, were considered to be in a fairly good scavenging condition, and that there was no reasonable cause for complaint.

The only outstanding case in the Rutherglen area, in which action was deemed necessary, was the private portion of Downiebrae Road, the deplorable condition of which is principally due to heavy traffic from the Farme Colliery, the owners of which, I understand, are held responsible by the Estate owners for the maintenance of the road, and they have given a promise, through their Agents, to have the necessary repairs to the road carried out.

South Lenzie—Bishopbriggs and Auchinairn.—The work of collecting and removing the refuse from these two Special Districts was continued in the hands of the same Contractors as in the previous year, and has been carried out without complaint.

Millerston and Riddrie.—The cleansing of this district, carried out by direct labour with the assistance of a man and horse hired on three days a week, has also been regularly and satisfactorily attended to. The number of cart loads of refuse removed during the year was 570.

Stepps—Chryston and Muirhead.—In these two districts the work of cleansing is also done by a man directly employed by the Scavenging Committee, with the assistance of a man and horse hired at a rate per day. The man's time is divided between the two districts in the proportion of two days in Stepps District and three days in Chryston and Muirhead, Satur-

day being devoted to either district as required. Complaints were general in the former district during the early part of the year, but there has been an improvement since, due to an additional horse and man being employed on one day a week. The same method had been adopted in the latter district in order to overtake the work. The practise of employing an extra horse and man is equivalent to an additional day per week, and if this practice is to continue a bi-weekly emptying of the dustbins at certain properties in the village of Chryston, especially during the winter months, should be arranged for, and I have no doubt could be accomplished with the exercise of a little energy on the part of the employee and the carter.

In order to facilitate the work and to avoid journeys to the refuse coups with light loads, I would again respectfully recommend the provision of a suitable covered cart or dust-float for use in both these districts and capable of at least doubling the quantity at present constituting a load.

In Stepps District 558 cart loads of refuse were collected and removed, and in Chryston and Muirhead District 946 loads. 3 ashpits were disused or demolished in the latter district and 8 dustbins provided.

The number of inspections made during the year in connection with scavenging in the 8 Special Districts was 6490.

SPECIAL DISTRICTS.

The Special Districts for the purposes of Water Supply, Drainage and Sewage Disposal, Scavenging and Lighting, are shown in the following table. The rates of assessment (half owners, half occupiers) for the year 1923-24 are also shown. A blank in the assessment column means that no district has been formed for the special purpose indicated.

District.	Parish.	Water.	Rate of Assessment per £ Drainage. Sewage Purification.	Scaveng- ing.	Light- ing.
Bishopbriggs and Auchinairn.	Glasgow and Cadder.	1/3½	1/0½	.....	5½d. 5½d.
(a) Cadder	do.	1/3½	.....	.....	.....
Carmunnock.	Carmunnock.	2/6	1/6	.....	.....
Chryston and Muirhead.	Cadder.	1/3½	1/2	.....	6½d. 4½d.
Gartcosh.	do.	1/3½	6d.	.....	.....
Glenboig.	do.	1/3½	.....	.....	5½d.
Lambhill	Glasgow.	(b) Levied by Glasgow.	.....	.....	3½d. 5½d.
(c) Millerston.	do.	do.	(d) (e) 5.96d.	7d.	5½d.
(c) North Shettleston.	do.	do.	(d) (e) 5.96d.	6½d.	6d.
Rutherglen	Rutherglen.	do.	3d. (e) 5.96d.	4½d.	5d.
South Lenzie.	Cadder.	1/2	6d.	.....	7d. 5d.
Stepps.	do.	1/3½	9½d.	.....	3d. 5½d.

NOTES.—(a) *The Cadder Water Supply District* includes part of Bishopbriggs, Cadder Village, Auchinloch, Mavis Valley, Jellyhill, Stepps, Chryston and Muirhead, Bridgend, Mossvale, Heathfield, Garnkirk, Moodiesburn, Mollinsburn, Gartcosh and Garnqueen; (b) *Glasgow Water* is supplied to Budhill, Springboig, Sandyhills, part of North Mount Vernon, part of Carntyne, Lightburn, Lambhill, Millerston, and Riddrie, Colston and part of Bishopbriggs in Glasgow Parish; Auchinairn village in Cadder Parish; and Farme, Eastfield, and part of Burnside in Rutherglen Parish; (c) Barony Drainage; (d) No assessment for drainage; (e) Glasgow Sewage Purification Area assessment.

HOUSE DRAINS.

262 visits were made relative to the condition of house drains, and the provision of water-closets. 29 inspections were made of the drainage systems of 15 properties found to be defective on being exposed. 18 systems were reconstructed or repaired. 33 applications of the smoke test were made on the drains of 21 properties. 16 water-closets were provided and 4 were in course of construction at the close of the year.

COMMON CLOSES, STAIRS and WATER-CLOSETS.

In connection with the By-Laws relative to the cleansing of closes, stairs and water-closets at tenement properties 315 inspections were made. Rotation date cards were issued to the occupiers of 43 dwelling-houses who failed to keep the closes, etc., clean. 49 notices, involving 105 tenement properties situated within Special Scavenging Districts, were issued to the owners or House Factors, requiring them to whitewash the close and stair walls, in terms of Section 117 of the Burgh Police (Scotland) Act, 1892. These were all attended to.

NUISANCES.

The following summaries show the number of nuisances dealt with in each parish and the number of intimations and notices served, etc. :—

	Glasgow (late Barony)	Cadder	Ruther- g'en	Car- munnock	Total.
Recurring nuisances under Section 16, Sub-secs. 2, 5 and 7 — — —	102	91	94	23	310
Structural nuisances under Section 16, Sub-secs. 3, 4, 6, 8, 9 and 10 —	16	17	19	5	57
	118	108	113	28	367

Intimations served during 1923, in terms of Section 19 of the Public Health Act, 1897 —	324
Notices served in terms of Section 20 — — —	11
Notices served in terms of Section 40 — — —	1
Notices served in terms of Section 117 of the Burgh Police (Scotland) Act, 1892 — — —	49
Insanitary conditions dealt with by letter—letters issued — — — — —	80
Notices and letters issued under the Cowsheds and Dairy Regulations — — — — —	42

HOUSING, TOWN PLANNING, &C., ACT, 1919.

Notices served in terms of Section 25 — — —	17
Notices served in terms of Section 40 (1) — — —	2
Intimations in terms of Section 41 (1) — — —	48

9,569 inspections were made for the detection of nuisances and in connection with complaints received, which numbered 170. The great majority of nuisances dealt with were as usual the choked or otherwise defective condition of the drainage systems of tenement property, and water-closets used in common. This class of nuisance is of almost daily occurrence, and when compared with the absence of nuisances of a like nature in the villa, cottage or terrace type of house, each with its own sanitary convenience, indicates a certain amount of carelessness on the part of some at least of the occupiers of tenement houses, who do not seem to realise the trouble and expense that owners are put to, and which might otherwise be avoided by a little care and more judicious use of the conveniences provided for them. Other causes of nuisance, more prevalent in the rural areas outwith Special Scavenging and Drainage Districts, were foul ashpits and privies. These at times lead to considerable correspondence before abatement. The nuisances outstanding at the close of the year, and regarding which intimations had been served, numbered 11.

161 house-to-house visits were made for the detection of overcrowding and as regards cleanliness. 1 notice was served in terms of Section 40 of the Public Health Act, in connection with a house found to be in a particularly dirty state, and as regards overcrowding I have given some instances in another part of this report, as to the condition at present prevailing in several parts of the district, and for which the only remedy that can be suggested is the provision of more, and still more, houses suitable to the needs of the working classes.

Two or three outstanding cases were dealt with by notices served on the occupiers, requiring them to get rid of families, who, perhaps through pity or friendship, had been admitted to share the already overtaxed capacity of the houses, and only after repeated visits and threats of penalties were the requirements of the notices given effect to.

Special inspections were made and reports prepared for submission to the Sub-Committee on Public Health, with reference to the following nuisances and other insanitary conditions, viz :— Sanitary conveniences at workshop, Lambhill; water-closets at properties at Auchinloch; condition of private roadways at Burnside; sanitary convenience at workshop at Bishopbriggs;

condition of private road at Lochfaulds Rows; condition of Bishopbriggs burn; condition of private roadway, Baronald Street, Rutherglen; defective sewer connections at Bishopbriggs; foul ashpits at Carmunnock; situation and condition of urinal at Bishopbriggs; Huntershill Quarry nuisance; defective drains at property at Garnqueen; sanitary conveniences and water supply at property, Drummond Place, Carmunnock; sanitary conveniences at property, Rowanbank, Carmunnock; securing of disused mines at or near Hangingshaw and Jennys burn; pollution of stream at Springboig, Shettleston; defective roof and rhones at property, Auchinairn; unsatisfactory housing of seasonal workers at farms; foul ashpits and defective drains at property, Gartcosh; water-closet accommodation at old properties at Chryston and Muirhead; insanitary houses, Peter's Land, Lambhill; insanitary houses, Carntyne Cottages, Carntyne, Shettleston; foul and defective ashpits at Gartcosh.

Notices in terms of Section 20 of the Public Health Act were authorised to be served, and in 11 cases this was necessary before steps were taken by those responsible to have the nuisances removed.

I may here mention that the improvement of the pressure on the water supply at the village of Auchinloch has been the means of permitting of the provision of water-closets, and the abolition of filthy privies, which have been a long-standing source of complaint. The provision of water-closet accommodation at six properties was commenced and most of the conveniences were completed and in use at the close of the year. All the properties in the village, with one exception, which I expect will be attended to soon, are now provided for in this respect and a vast improvement in the sanitary conditions will no doubt result.

INFECTIOUS DISEASE.

378 visits of enquiry were made by the sanitary officers; 164 apartments and 160 sets of bedding, etc., were disinfected, and 2 sets of bedding, etc., destroyed.

OFFENSIVE TRADES.

The number of offensive businesses on the Register at the close of the year was 5, one—that of Bone Boiler—was removed, and sanction was granted to the establishment of the business of Tallow Melter, the application for which was lodged during 1922.

The Bone Boiling business, referred to in my last report, carried on at premises at Carntyne, was discontinued on account of the careless manner in which the business was conducted and complaints received. The plant was removed from the building and up-to-date plant, for use in Tallow Melting, was installed, the buildings were put into a proper state of repair and sanction was granted to the same party, on condition that he conducted the business in accordance with the regulations and without offence. This he did for a short time, but ultimately sold the business to the owner of a similar business in premises adjoining.

The other Tallow Melting business, and that of Blood Drying, carried on in premises at Carntyne, continue to be conducted quite satisfactorily.

The Soap Manufactory and Soap Boiling business, carried on under the title of Roystons Limited, at Bishopbriggs, was also conducted without complaint, but the works have been at a standstill for some time towards the end of the year.

The Fish Meal and Manure Manufactory at Downiebrae Road, Rutherglen, is the most extensive business under this heading, and the most difficult to control in view of the large quantity of material that is dealt with, more especially during the first stages in the process of drying. The works are in operation practically day and night during the whole week, Sunday at times included, the average quantity of fish and fish offal treated daily being 30 tons.

Everything possible has been done and no expense has been spared to perfect the plant in operation and to diminish the risk of offensive vapours escaping, but there is always the human element to contend with, and cause for complaint might very often occur but for strict supervision on the part of the Sanitary Officials. There has been no very serious cause for complaint during the year, but the owner and his employees in charge had on several occasions to be talked to severely regarding carelessness or failure in seeing that proper cleanliness was maintained, which is absolutely essential in a business of this nature if cause for complaint is to be entirely obviated.

PUBLIC SCHOOLS.

The public schools in the district were visited as time permitted. The classrooms and sanitary conveniences continue to be kept in good order.

FACTORIES and WORKSHOPS.

2 communications were received from H.M. Inspector of Factories. These had reference to sanitary conveniences at workshops and were attended to.

62 inspections were made of the sanitary conveniences at factories, which were found in fair order, and 34 inspections were made of workshops and workplaces, also found in order. 4 workshops were registered during the year and 1 notice was served on an occupier regarding a contravention of the regulations.

1 communication was received from another Local Authority, with reference to the premises of 1 outworker, which on inspection were found clean and in order.

The register of Workshops has been revised and the number in each parish at the close of the year is as follows :—Glasgow (late Barony) 3, Cadder 48, Rutherglen 5, Carmunnock 9, classified as follows :—

Dressmakers and Tailors	-	-	-	4
Boot and Shoemakers	-	-	-	14
Blacksmiths	-	-	-	5
Joiners	-	-	-	7
Plumbers	-	-	-	6
Bakehouses	-	-	-	2
Concrete Block Manufacturers	-	-	-	1
Laundry	-	-	-	1
Miscellaneous	-	-	-	25
				<hr/>
Total	-	-	-	65
				<hr/>

DAIRIES and COWSHEDS.

The number of cowkeepers and dairymen on the register at 1st January, 1923, was 128, 9 were removed from the register, and 14 added, leaving on the register at 31st December, 133, and comprise the following :—Producers 64, Producers and Retailers 34, Retailers or Purveyors 30, Butter Makers 5—Total 133. The average number of cows in milk is approximately 2,000.

5 cases of Foot and Mouth Disease were reported by the Police, as having occurred at dairy farms in the district, towards the end of the year.

134 inspections were made of dairy premises, which generally continue to be kept in fairly good condition.

Repairs were carried out at the following :—

Cawdercuilt Farm.—Byre remedied and made into single byre, with stalls on one side only, new cement concrete floor and stalls improved, lighting and ventilation provided.

Blackfaulds Farm.—Byre floor repaired, ventilation improved and drainage system partially reconstructed.

Blackhill Farm.—Drainage system in course of entire reconstruction. Milk Shop at Eastfield, Rutherglen. Scullery provided with water supply and sink.

Chryston Mains Farm.—Water-closet provided for dwelling-house, and convenience for employees put into a proper state of repair.

Complaint was made regarding milk being sold from a dwelling-house at Eastfield, by a girl who retails milk from a cart in the district, or by her parents with whom she resides in the house referred to. Enquiry was made and a watch kept on the premises, but nothing was observed, or evidence obtained to indicate that milk was being retailed.

Complaint was also received from the Sanitary Inspector of Rutherglen, regarding a boy employed delivering milk to a dairy in the Burgh from a farm in the Lower Eard District, while alleged to be suffering from sores on his neck. The matter was enquired into, the boy was examined and his employer warned and prohibited from allowing him to have anything whatever to do with the milk supply at the farm or in delivery.

SEASONAL WORKERS.

During the Autumn months squads of potato-diggers from Ireland were employed at 7 different farms in the district. On inspection and enquiry being made regarding the accommodation provided for the workers at the several farms, it was found that the conditions and arrangements made for this purpose were not at all satisfactory, and as a consequence a detailed report as to the conditions under which the workers were housed, was prepared and submitted for consideration by the Public Health Committee, together with a recommendation that By-Laws should be made in terms of Section 45 of the Housing, Town Planning, &c. (Scotland) Act, 1919. The recommendation was approved. By-Laws have been drafted and await the approval of the Scottish Board of Health.

PIGGERIES.

The number of pig feeders on the register at 31st December was 41. This is exclusive of small pig-styes at farms. The number of pigs in the district at the same date was 3,795. The pig-styes in general are kept in fairly good condition. 166 inspections were made during the year.

Plans were approved for the construction of a large piggery, capable of accommodating two or three hundred pigs, proposed to be erected, together with a dwelling-house, on ground to the east of Possil or Balmore Road, and near Lambhill. The work of construction, which has been going on during the year, is nearing completion, and the piggery is likely to be one of the best in the district.

BURIAL GROUNDS.

11 inspections were made of burial grounds in the district, special attention being given to the common ground and to the manner of interments therein, which was found to be in order.

8 visits of enquiry were made relative to applications for burial by the Local Authority, of unclaimed bodies and of others where, owing to exceptional circumstances, relatives were unable to meet the cost, and 4 burials were carried out in terms of Section 69 of the Public Health Act.

TENTS and VANS.

6 inspections were made of travelling vans sojourning in the district for short periods, and these were found to be clean and in order.

PUBLIC URINALS.

Objections continue to be raised by residents, as to the situation of the urinal at Bishopbriggs, and communications to that effect were received by the District Clerk, from Cadder Parish Council, and requesting its removal to a more suitable site. As a result of reports submitted to them to the effect that there was no other site available or less offensive, the District Committee did not see their way to recommend its removal or to take any action in the matter.

REPORTS SUBMITTED.

During the year, in addition to the usual monthly reports, descriptions of boundaries of proposed extension and formation of new Special Districts and relative plans, Specifications of Works, &c., 65 special reports were submitted through the District Clerk to the several Sub-Committees, dealing with Housing, general Nuisances, Drainage, Scavenging and Lighting, and other public health matters.

A statement of proceedings, etc., under the Public Health and other Acts is annexed herewith.

W. S. BRUCE.

STATEMENT BY THE SANITARY INSPECTOR OF PROCEEDINGS
UNDER THE PUBLIC HEALTH AND OTHER ACTS DURING
THE YEAR 1923.

Sub-Sanitary	Inspectors	Employed	(including	3	Health	<i>Number.</i>
Visitors)	-	-	-	-	-	5

Nuisances.

Complaints received	—	—	—	—	—	—	—	170
Visits of enquiry and inspection	—	—	—	—	—	—	—	9661
Intimations and notices served in terms of Public Health Act	—	—	—	—	—	—	—	336
Nuisances abated	—	—	—	—	—	—	—	356
Nuisances outstanding at 31st December, 1923	—	—	—	—	—	—	—	11
Insanitary conditions dealt with by letter	—	—	—	—	—	—	—	80
Number of recurring nuisances dealt with by Intimation	—	—	—	—	—	—	—	310
Number of structural nuisances dealt with by Intimation	—	—	—	—	—	—	—	57

INFECTIOUS DISEASE.

Visits of enquiry re notifiable and non-notifiable cases	—	737
Apartments disinfected	— — — — — — —	164
Bedding and articles of clothing disinfected	— — —	160
Bedding, etc., destroyed	— — — — — — —	2
Intimations to parents and school teachers	— — —	459

Factories and Workshops.

Communications received from H.M. Inspector of Factories	2
Inspections — — — — — — — —	96
Intimations of Outworkers received from other Local Authorities	1
Visits to Outworkers' premises — — — — — —	1
Workshops registered during the year — — — —	4
Contraventions dealt with — — — — — —	1
Communications received from H.M. Inspector of Mines	— 1
Disused Mines—Inspections — — — — — —	3

Cowsheds and Dairies.

Number on Register at 31st December, 1922	—	—	—	128
Registered during the year	—	—	—	14
Removed from Register	—	—	—	9
On Register at 31st December, 1923	—	—	—	133
Inspections	—	—	—	134
Contraventions of Regulations dealt with	—	—	—	9
Notices and letters to Registered occupiers	—	—	—	42
Licences granted for sale of pasteurised milk	—	—	—	1

Offensive Trades.

On Register at 31st December, 1922	-	-	-	-	-	5
Removed from Register	-	-	-	-	-	1
Applications for sanction to establish	-	-	-	-	-	—
Applications granted—conditionally	-	-	-	-	-	1
On Register at 31st December, 1923	-	-	-	-	-	5
Inspections	-	-	-	-	-	156
Contraventions of By-laws	-	-	-	-	-	3
Notices and letters to owners	-	-	-	-	-	6

Drainage.

Visits re condition of house drains	-	-	-	-	-	198
Drain Inspections	-	-	-	-	-	29
Defective drains disclosed	-	-	-	-	-	15
Drainage systems remedied or reconstructed	-	-	-	-	-	18
Applications of smoke test	-	-	-	-	-	33
Number of properties tested	-	-	-	-	-	21
Visits re provision of Water Closets	-	-	-	-	-	64
New Water Closets provided, including those provided under Section 41 (2) of Housing Act, 1919	-	-	-	-	-	17
Shower Baths provided at Mossbank Industrial School	-	-	-	-	-	30
Wash-hand basins provided at above	-	-	-	-	-	63
Sinks provided	-	-	-	-	-	1
Connections to public and private sewers	-	-	-	-	-	39
Inspections re defective choked sewers	-	-	-	-	-	31
Inspections of Sewage Purification Works (including private sewage tanks)	-	-	-	-	-	223
Private sewage tanks abolished	-	-	-	-	-	2

Building By-Laws.**New Buildings, Alterations, Additions, Etc.**

Number of plans lodged and approved	-	-	-	-	-	62
Visits re Plans lodged	-	-	-	-	-	63
Inspections of New Buildings, Alterations, Additions, etc., by Building Inspector	-	-	-	-	-	610
Applications of smoke test to drains and plumber work	-	-	-	-	-	191
Number of properties tested	-	-	-	-	-	156
Houses and shops, etc., passed for occupancy	-	-	-	-	-	288

Committee's Housing Schemes.

Visits by Building Inspector re Sites, formation of Roads, Sewers, Drains, Building, Comparable Rents, etc., and Progress of Works	-	-	-	-	-	1268
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Housing, Town Planning, Etc. (Scotland) Act, 1909.

Houses inspected for the purposes of Section 17	-	-	-	39
Houses considered unfit for human habitation	-	-	-	15
Secondary inspections of houses previously reported on	-	-	-	10
Houses closed voluntarily (1 demolished)	-	-	-	2
Houses in which defects were remedied by owners	-	-	-	6

Housing, Town Planning, Etc. (Scotland) Act, 1919.

Notices served under Section 25 (1)	-	-	-	-	17
Houses rendered fit for habitation by owners	-	-	-	-	10
Notices served under Section 40 (1) to provide dwelling houses with water supply	-	-	-	-	2
Requirements complied with by owners (houses supplied with water)	-	-	-	-	1
Intimations given under Section 41 (1) as to insufficient Water Closet accommodation	-	-	-	-	48
Requirements complied with by owners	-	-	-	-	26
W.C's provided	-	-	-	-	12
Cases still pending, 17 of which have been arranged for	-	-	-	-	46

Miscellaneous Matters.

Cemeteries—Inspections of Burial Ground	-	-	-	-	11
Visits re applications for Burial	-	-	-	-	8
Burials in terms of Section 69 of Public Health Act	-	-	-	-	4
Pig-styes—Number on Register at 31st December, 1923	-	-	-	-	41
Inspections	-	-	-	-	166
Approximate number of pigs in District at 31st December, 1923	-	-	-	-	3795
Tents and Vans—Inspections	-	-	-	-	6
Public Schools—Inspections	-	-	-	-	12
Visits to premises alleged to be infested with rats	-	-	-	-	12
Cases dealt with and poison supplied	-	-	-	-	9
Visits for detection of overcrowded and dirty houses	-	-	-	-	161
Refuse Coups—Inspections	-	-	-	-	9
Visits re defective water supplies	-	-	-	-	7
Samples of water taken for analysis	-	-	-	-	2
Visits re housing of Seasonal Workers	-	-	-	-	9
Foul streams, ditches and cesspools—Inspections	-	-	-	-	6
Dirty houses dealt with by Notices to occupiers	-	-	-	-	1
Common Closes, Stair and W.C's—Inspections	-	-	-	-	315
Rotation date cards issued to occupiers re cleansing	-	-	-	-	43
Privies repaired	-	-	-	-	2
Cinemas—Lavatory Accommodation—Inspections	-	-	-	-	2

COUNTY OF LANARK
DISTRICT OF THE LOWER WARD.

Midwives (Scotland) Act, 1915.

SEVENTH
ANNUAL REPORT

BY THE
MEDICAL OFFICER OF HEALTH.

1923.

MIDWIVES (SCOTLAND) ACT, 1915.

ANNUAL REPORT, 1923.

STAFF.

Administrative Officer.

JOHN T. WILSON, M.D., D.P.H.

Executive Officer and Inspector of Midwives.

JOHN P. CRICHTON, L.R.C.P. & S., D.P.H.

Nurse Health Visitors and Assistant Inspector of Midwives.

(All hold C.M.B. Certificate).

MARGARET L. WINCHESTER. JEAN HARVIE.

ALICE SMITH.

REPORT.

PRACTISING MIDWIVES.—18 midwives resident within the District notified their intention to practise during the year. Of these, 3 resided in the Parish of Glasgow, 13 in Cadder, and 2 in Rutherglen. At the end of the year one gave notice voluntarily to discontinue practice owing to leaving the district. 19 midwives resident outwith the District attended cases during the year, all of whom hold recognised certificates.

Certification.—2 of the midwives hold the Certificate of the Central Midwives Board for Scotland by examination; 1 has the Certificate of the Royal Maternity Hospital, Glasgow, and the remaining 15 are *bona fide* midwives.

Length of Time in Practice.—One has acted for 37 years, and eight have been in practice for over 20 years.

ATTENDANCE AT CONFINEMENTS.—664 births were registered, and of this number 610 or 92 per cent. were notified, and 50 per cent. were attended by certified midwives. The following table gives, according to Parish, the number of births registered and notified, and of those notified, the person in attendance at confinement.

PARISH.	Number of Births.		Doctor.	Attendance at Confinement.	
	Registered.	Notified.		Midwife.	Not Stated.
Glasgow, —	169	162	57	105	.....
Cadder, East,	206	187	114	70	3
Cadder, West,	171	148	69	79	.....
Carmunnock, —	14	9	9	.....	.....
Rutherglen, —	104	104	27	76	1
	664	610	276	330	4

INSPECTION OF MIDWIVES.—The total number of inspections made by the Assistant Inspectors of Midwives was 72. They found that the *personal conditions* were satisfactory in 12 instances, and only fair in 6. The *home conditions* were described as satisfactory in 11, and as fair in 7.

7 midwives in the District are unable to read or write, and their *records* are kept by members of the family.

Extent of Practice.—The registers kept by the midwives showed that one attended 57 confinements; three from 20 to 30; three from 10 to 20; seven from 1 to 10; and three none, while one did private nursing only with a doctor.

MEDICAL ASSISTANCE.—In 61 instances a doctor was called to the assistance of the midwife in accordance with the rules of the Central Midwives Board. The conditions requiring medical aid were as follows:—Delayed labour, 12; ruptured perineum, 7; rigidity of perineum, 4; miscarriage, 4; uterine inertia, 4; abnormal presentation, 4; placenta praevia, 2; albuminuria, 3; stillbirth, 2; haemorrhoids, 2; anti-partum haemorrhage, 2; failure to find presentation, 1; long anterior lip of cervix, 1; post-partum haemorrhage, 1; prematurity, 1; adherent placenta, 1; impaction, 1; illness of mother, 6; discharging eyes, 3.

PAYMENT OF DOCTOR'S CLAIMS.—30 claims amounting to £34 8s. 6d. were received, and of this sum £2 6s. was recovered from the husbands of the patients.

PUERPERAL SEPTICAEMIA (including all notifications of Puerperal Fever).—6 cases were notified and removed to hospital. 3 were doctors' cases, 2 midwives', while one was confined in Bellshill Hospital.

STILL-BIRTHS.—During the year 19 still-births were reported, 13 of which were attended by doctors and 6 by certified midwives.

OPHTHALMIA NEONATORUM.—17 cases were notified, 7 by doctors, 5 by midwives, and 5 by health visitors.

LIABILITY TO BE A SOURCE OF INFECTION.—None received during year. One midwife was called upon by the Inspector of Midwives to explain failure to notify being a source of infection. The gravity of the offence was pointed out to her.